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THE THOMISTIC CONCEPT OF MENTAL FACULTY

A Dissertation

SUBMITTED TO THE FACULTY OF PHILOSOPHY OF THE CATHOLIC UNIVERSITY OF AMERICA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

BY

CHARLES ALOYSIUS HART, A.M., S.T.B., J.C.B.

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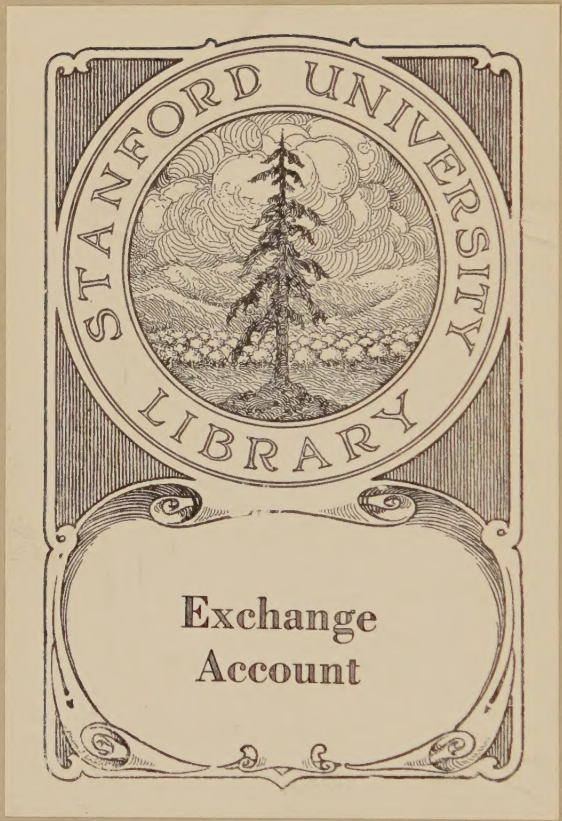
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CHAPTER I

Introduction—The Problem

It has not infrequently been said, and with considerable truth, that while the physical theories of Aristotle and the medieval Schoolmen now have interest only for the historians of science, their profound observations and introspections upon human nature, and particulary the human mind, demand perennial attention. "Taken as wholes these (modern psychological) works", says Professor Charles Spearman of the University of London, "always seem to suffer from some deep-seated fatal limitation; this is manifested in the fact—unknown to the really progressive sciences—that they never arrive at rendering the older fine works in any way obsolete. Thus we moderns can afford to look at Archimedes patronizingly, as down at a brilliant child; but Plato, Aristotle, Aquinas, not to mention many others, even yet oblige us to look upward as at our masters".[1]

Among the first tasks which confront a science is that of classification of its data. In psychology this led these ancient masters to formulate a quite definite theory of mental powers or faculties which during the last century and a half has fallen into disrepute. Since the days of the German philosopher and educator, Friederich Herbart (1776-1841) there have been few psychologists or educators who have not taken a fling at its supposed absurdities. In the declining days of Scholasticism and subsequently at the hands of Christian Wolff and later the phrenologists the theory did no doubt often become ridiculous. "Moreover there is something grotesque and irrational in the supposition that the soul is equipped with elementary powers of such an ingeniously intricate sort", says William James.[2] "Both the older and the later (phrenological) forms of faculty psychology have long been discredited", declares William McDougall.[3] They are "gross unanalyzed terms of popu-

[1] *The Nature of Intelligence and the Principles of Cognition*, pp. 27-28, 1923.

[2] *Outlines of Psychology*, p. 3.

[3] *Outline of Psychology*, p. 13.

lar psychology".[4] These strictures are typical of the more moderate, yet well nigh universal, chorus of condemnation. Apparently the great minds in the early history of psychology were hopelessly wrong in their analyses of mental activity.

The denunciations of the various modern psychologists, however, are not usually accompanied by particularly brilliant reasons for the opposition. Dr. Carroll C. Pratt of the Harvard Psychological Laboratory has recently made so bold as to suggest that psychology, like music and other arts, has fashions; "that the force of tradition, so overwhelmingly powerful in the social life and the arts, is not altogether absent in science. . . . So in psychology it is now quite the thing to do to call faculty psychology a relic to be viewed in the museum without bothering to justify its place among the relics".[5] It is conveniently labeled "naïve" or "common sense" or "the unscientific man's popular view of the mind". But psychology is peculiar in that it has so many data to which the popular mind has easy access and which cannot be monopolized by scientists. In a bit more serious strain the theory is thrown out of court on the ground of "no jurisdiction". Psychology must merely describe. It must not explain or interpret by declaring a mental act to be due to a faculty. But since when has psychology so departed from the ways of science, to which it has lately so ardently aspired even to the extent of divorcing itself from philosophy, as to eschew hypotheses, the stock in trade of science? Says Dr. Pratt in the discussion above referred to:

> The necessity for observation in science as the preliminary, as well as the final, step on the road to discovery is so patently obvious that the mere mention of it becomes almost a platitude. To insist upon its exclusive importance, however, is not a platitude. Observation is only a part of methodology. . . . The more theories then, the richer will be the meaning of the facts. . . . The unfortunate results of too little speculation (in psychology) are not far to seek. Take the whole domain of sensory phenomena as worked over by the Wundtian type of psychology. Experimental observations were piling up till the shelves of libraries were creaking under their weight But they tended

[4] Ladd's and Woodworth's *Elements of Physiological Psychology*, p. 274.

[5] "Faculty Psychology" in *Psychological Review* for March, 1929, pp. 142-171.

to be isolated facts, for from them little could be deduced, on the basis of assimilation, colligation, and fusion regarding the higher mental processes.[6]

The present investigation aims to recover the best teaching of medieval Scholastic psychology as represented by St. Thomas Aquinas and several of his most notable contemporaries upon the theory of mental faculty. It seeks the origin of the theory in certain early Greek and particularly Platonic and Aristotelian beginnings of psychology as a constructive background. It aims to consider in particular the metaphysical basis of the theory as St. Thomas understood it. Its concern is with the concept of faculty itself rather than with the detailed division to which the concept led and which we may consider as the empirical aspect. Finally, certain of the more prominent historical criticisms of the faculty psychology in general are considered, particularly with a view to determining whether these may be rightly urged against the best expressions of theory. It would seem to be obvious that here, as in any other question, we should pass our judgment upon the best rather than the most exaggerated or obviously absurd statement of an hypothesis. A few words may also be said about the present status of the theory in the light of certain modern experimental researches in so far as we are able to make any definite judgments from a rather uncertain field.

The investigation is definitive rather than defensive. It starts with no preconceived notion that the theory is perfect either in general structure or in its details. Neither is one to be prejudiced by the powerful force of a traditional or stereotyped opposition. The problem to which we address ourselves is as old as psychological speculation itself. Whatever we may think concerning the ultimate nature of soul, or mind as psychologies without a soul would prefer to say, we feel most intimately the fact of a continuously changing consciousness, at least during our waking moments. These states or processes, call them what you will, do not affect us in the same way. In some cases, moreover, they seem to rely upon definite different bodily organs. In other cases we are not conscious that any bodily organ is involved. Nevertheless each

[6] *Ibid.*, pp. 151 and 157.

state is not completely different from all others. Certain similarities with others that have gone before seem to permit of definite groupings at least, even while we are conscious that they are all our states. To ourselves we naturally refer to them. We are aware also that this field of consciousness is quite narrow. Many states or processes are latent, outside this field of consciousness. We have the power to think of them but may not be actually doing so. How do they emerge? Is it possible that these different groups are the result of the exercises of more immediate principles, are sources of which the mind itself is the remote source? Would such immediate sources be in any way real, in any way distinct from the mind and from each other? Here we enter the field of hypothesis, of metaphysical speculation. However, answers are not impossible. Close scrutiny of the processes or states themselves and of the material objects towards which they are directed may possibly provide the clue. Here, as elsewhere, actions reveal the natures of things. Here also, as in other sciences, we may not be content with the purely phenomenal. If our experience leads us to the positing of a mental faculty we shall feel no necessity of disguising the fact by calling it by some other name. Our metaphysics will not be clandestine any more than is the metaphysics of physics or biology with its *ethers, electrons, ids, biophors* and a host of other "occult" explanations which are their stock. The logician, Coffey, says that:

> As a matter of fact it is now beginning to be recognized by scientists that all attempts to explain nature, whether organic or inorganic, by collocations and motions of material masses in space and time, i. e. by purely *perceptible* or *picturable* factors, and without the aid of purely *conceptual* or *intelligible* factors such as force, power, efficiency, purpose, and design have proved futile; that concepts of hyperphysical entities and influences, however "occult" to sense or imagination are indispensable for a rational explanation of nature's processes, in a word that the cause or principle of action which may be the object of a legitimate scientific hypothesis need not be itself a phenomenon directly perceptible by the senses.[7]

The theory of mental faculties has several practical consequences.

[7] *Science of Logic*, pp. 131-132.

Perhaps the most important is for education where for centuries prior to the revolt led by Johann Friederich Herbart the doctrine of formal training of faculties held sway. As a corollary to this supposition it was believed that training or exercise of a faculty in one situation or upon one kind of data would give greater facility in the exercise of that same faculty in other situations. In a word the training was capable of transfer. Thus the theory is closely related to the science of education in some of its most fundamental problems.

The structure of moral theology is likewise much concerned with assumed faculties. The intellectual virtues, for instance, are defined as those habits of the intellect which so perfect the intellectual faculty as to enable it to elicit with readiness those acts which direct it towards its object, namely the truth. Likewise the moral virtues are habits perfecting the will and the sensuous appetites. It is hard to see how the moral theology of Scholasticism could be constructed as it is without relation to some theory of mental faculties.

CHAPTER II

Pre-Aristotelian Notions of Mental Activity

The term "mental faculty", now applied to the theory offered as an explanation of the generally admitted facts of mental life outlined in the introductory chapter of this treatise, was probably first used, (according to the opinion of most historians of psychology[1]), by Christian Wolff (1679-1754) the German philosopher and forerunner of Kant in his *Psychologia Rationalis* (1734). It is interesting to note that the term should have come into use at the very time when the theory was being subjected to its most severe criticism at the hands of the English empiricist, John Locke.[2] But if the name was the product of a later period the concept itself was not new. We find a form of the doctrine, crude and naïve indeed, when contrasted with its perfected expression, as early as the Pythagorean philosopher, Areas of Croton (c. 520 B. C.). It would seem of some value at this stage to enter into a brief history of the construction of the concept. This is done not only because the genetic method of treatment of such subjects is considered the most advantageous today, but also because of a reason more closely related to this problem. We shall see that much of the misunderstanding and criticism of the theory, as here presented in its Thomistic expression, has probably arisen from a confusion of that expression with the early and crude explanations offered prior to the philosophy of Scholasticism or with absurd and evidently false expressions which followed in the wake of the decline of Scholasticism in the period of the Renaissance. It is easy enough to select the weakest and most undeveloped initial expressions or later exaggerated views of a theory for gleeful attack, as the writer recently heard the faculty theory attacked by a prominent psychologist in one of the largest secular universities in the East. Every hypothesis that has any life undergoes such a history of change. But one usually selects its best

[1] Cf. Klemm, *History of Psychology*, p, 59.
[2] Cf. *Essay on Human Understanding.*

expression for consideration as the fairest attitude towards it. Hence in the interests of clearness itself we think this review of the faculty theory will not be superfluous. The sketch is, of course, not complete but deals only with those more general phases of historical psychology which touch upon this theory.

In any system of thought classification of the phenomena constituting the matter is evidently one of the first tasks of the scientist or philosopher. Such a classification problem is ultimately what the faculty theory in any form attempts to meet in the field of psychic phenomena. It is not necessary for us here, in view of the limited scope of this treatise, to go into the details of all these attempts. It will suffice if we outline those which may be considered as landmarks in the development of the concept. It is to be hoped that our definition of the Thomistic faculty theory will be better understood in the light of this review of its historical setting and development.

As we have indicated, the mind naturally seeks unity in the midst of the multiplicity found in any sphere of thought. Hence in its own content it has observed this multiplicity of processes many of which appeared to be very similar in their character and origin and, by that same token, very different from other processes. In a word, they seemed naturally to group themselves. It is this quite common fact that forms the basis of the many attempts at classification.

Very early in the history of thought, indeed before any real philosophy had arisen, amongst the Early Greeks we find in popular language itself crude attempts at classifying mental phenomena, just as we find similar unscientific efforts in grouping physical phenomena. One smiles today at the various positions held by the four elements, earth, air, fire, and water in the physical theories but recognizes in them at the same time the beginning of scientific explanation. We are not concerned here with the origin of the concept of the soul substance itself but rather with the distinctions introduced into its activities regardless of the nature of the substance. This must evidently be the product of a somewhat later period. With primitive man the soul does not appear to have any clear distinctions in its activities. In the writings of the Hebrew prophets, in the somewhat later views in

the Old Testament, spirit, as the impersonal element which survives after death, began to be distinguished from soul which was the vital and mortal principle of life. The first, coming from God returns to its source. The other, with death, goes to destruction (Sheol). Another older Hebraic notion, however, without such a distinction between spirit and soul apparently continues.[3]

1. *Pre-Socratic Theologians and Philosophers*

Seventh to Fifth Century B. C.

As is usual in the history of theories, along with the more reasoned and methodical attempts of the earliest Greek philosophers to classify mental phenomena, there was the popular somewhat religious and mystical effort which we may consider as the teaching of Homeric tradition and of early Greek theologians. According to Tyler,[4] among the Homeric Greeks as well as among all primitive people generally, the notion of soul arose from the consideration of the great difference discerned between the living and the dead body. The living principle gradually came to be considered as a kind of shadowy vapor-like duplicate or ghost of the body. This ghost-soul animates the body and yet can leave it for a time, as in sleep, or in a trance, or departs finally in death. Whether or not we accept Professor Tyler's much controverted theory is not of importance here. What is of interest to us is the general view as expressed in the Homeric writings, and popularly prevalent even until after the advent of the earliest philosophers, that the soul and the seat of the soul's powers were distinct. The former was frequently synonymous with life but did not support the mental faculties. These latter were usually located in the region of the diaphragm and were dissolved at death. At other times the powers are attributed to entities which are in the body yet somehow not in any particular part of it. Along with this Homeric tradition went the teachings of the theologians of the Eleusinian Mysteries at Athens, of the Cult of Dionysius of

[3] Cf. McDougall, "Body and Mind," p. 8; also Charles, "A Critical History of the Doctrine of a Future Life in Israel," *Judaism and Christianity*, p. 44.

[4] *Primitive Culture*, Chapter II.

Apollo at Thrace. These teachers held out a hope of a more definite and popular immortality of the soul. Formed for a higher destiny together with all its mental faculties it is separable from the body.[5]

2. *Early Greek Philosophers*

The earliest Greek philosophers who are considered as such prior to Socrates are generally termed Nature Philosophers in that they concerned themselves with external rather than internal phenomena. Various divisions of the period are made according to the different bases employed. 1. The *Ancient Ionians* at Miletus, represented chiefly by Thales (c. 624-548 B. C.), Anaximander (c. 611-547 B. C.), Anaximenes (588-524 B. C.) and Diogenes of Apollonia. 2. The *Italian* or *Pythagorean School* whose leader was Pythagoras of Samos (c. 580 B. C.). 3. The *Eleatic School,* Xenophenes (576-480 B. C.), Parmenides (c. 540 B. C.), Melissus and Zeno of Elea. 4. *Atomic School* at Abdera which also includes the mechanist section of the later *Ionic* represented by the dynamism of Heraclitus (535-475 B. C.), the Atomism of Empedocles (c. 495-435 B. C.), the atomism of the school of Abdera of which Leucippus and Democritus (460-370 B. C.) are the chief exponents, and the atomism of Anaxagoras of Athen (c. 500 B. C.).

Of the external phenomena which were the concern of all these early thinkers it was mainly the stable or enduring aspect of things even in the midst of change which interested the first three of these schools. According to this principle they may be grouped together. In the last named school of Atomists and Dynamists it was the changing aspect that was emphasized. The former found this stable element now in fire, now in air, earth or water or various combinations of these ultimate elements. Some of the latter group explained change upon a dynamistic basis by supposing things of nature to develop under the influence of one or more internal principles of activity which were also qualitatively different when manifold. Others of this last group accounted for this changing aspect atomistically by postulating an inert mass of homogeneous parts, the sizes and various shapes of which explained

[5] This brief resumé follows the generally accepted interpretation given by E. Rhode in his authoritative work *Psyche* (Leipzig 1906).

the diversity of physical phenomena. Added to this there was motion which was communicated to the mass and explained the differentiation of parts.

This concentration upon matter and its movement by the Early Greek schools gave their philosophy, especially in its final culmination, a distinctly materialistic content, largely to the exclusion of mental as opposed to physical phenomena. References to the soul are of a popular nature and even then of the briefest sort. The predominant notion, when soul is thought of at all, is that of principle of motion, the mover of things, even a divine motor, in that it is part of the manifestation of the general moving and guiding power of the whole universe. The motor idea is the important view which runs through the whole speculation of the ancient Greek philosophers and may be considered to be the principle which gives a semblance of unity to them. As to their views of the distinctions to be made among various mental powers, or powers physically considered we must rely largely upon Aristotle's historical summary which forms the introduction to his own psychological treatise, *De Anima.* In the second chapter of this work he gives a general statement of these views in relation to the problem we are discussing. "Those who have directed their attention to the motion of animate being conceived the soul as that which is most capable of causing motion; while those who laid stress on its knowledge or perception of all that exists identified soul with the ultimate principles whether they recognized a plurality of these or only one."[6] "Like is known by like," was the principle invoked. Motion and sensation, he says, are, approximately, the two characteristics of the soul, handed down by his predecessors.[7] The Atomists and Pythagoreans are among others who insist on the former characteristics, Empedocles and Plato (in Aristotle's mind) on the latter. Plato himself says[8] that the Pythagorean doctrine considered the soul as a kind of microcosmic harmony not unlike the macrocosmic harmony of the

[6] *De Anima*, Bk. I. Ch. 2, 404b[6] (R. D. Hicks' translation, Cambridge, 1907).

[7] *De Anima*, ibid., 404b[25].

[8] Phaedo, 85E.

spheres. Aristotle, after a brief reference to this theory, which he does not ascribe to any particular school, and which he rejects, adds: "There is another theory of the soul handed down from our predecessors which to the minds of many persons is no less convincing than the theories already described. Account has been taken of it even in our popular treatises. This theory regards the soul as a sort of harmony. 'Harmony,' says its advocates, 'is a mixture and combination of opposites.' The body, too, is composed of opposites. Although it is true that harmony is a sort of relation in mixed parts we maintain that it is impossible for the soul to be either of these." [9] A connection of fragments of Pythagorean theories of knowledge with their ethical system shows the foundation of both to be a distinction between a rational and an irrational part of the soul, with different bodily organs as their physiological bases. Eisler [10] quotes the *Doxographi Graeci* (Diel) as giving the Pythagorean doctrine of the soul to be a quaternion of reason (nous), knowledge or understanding (episteme), opinion or judgment (doxa) and perception (aisthesis). This same compiler [11] quoting from the doubtful Philolaus fragment says this school located the reason in the head, the soul and perception in the heart, growth in the navel, and reproduction in the sexual parts. This doctrine of physical parts of the soul is evidently the clear forerunner of the doctrine of mental faculties. As we shall see, the two are not clearly separated from each other until we reach the great impetus given to scientific psychology by the observations of Aristotle.

Returning to Aristotle's summary of the psychology of his predecessors we find that some combined both motion and perception and thus called the soul a self-moving number, with reason, knowledge, opinion and sensation, representing the numbers. Thus practically all, according to this historian, define the soul by the use of three characteristics, corporeality, motion, and perception—the last two, of course, representing capacities. That Aristotle, after a lengthy discussion, rejects all these views of the soul as

[9] *De Anima*, Bk. I, Ch. IV. 407b[30].
[10] *Philosophisches Wörterbuch*, Vol. 2, p. 323.
[11] *Ibid.*, p. 323. Cf, also Zeller, *Outlines of Greek Philosophy*, p. 54.

mover, or moved, as harmony, as self-moving number, and indeed all other early views, does not concern us here. The Stagyrite is merely clearing the stage for his own view on soul as principle of life. Out of this view an intelligible faculty theory develops, as we shall see in the next chapter. Knowledge is an attribute of the soul, as well as perception, opinion, desire, locomotion, growth, maturity, and decay but not for the reason his predecessors give.

We cannot pass over this period, however, without noting the advance made by one representative of these four schools of early Greek Philosophers, namely Anaxagoras. Ordinarily in the writers of this period, the mental is in no way separated from the physical. Aristotle notes that Anaxagoras alone maintains that mind cannot be acted upon and has nothing in common with anything else. This is the "nous" of Anaxagoras which both Plato and Aristotle construed to be immaterial reason. It is perhaps the first introduction of the purely suprasensible in Greek Philosophy.[12] Although this early writer meant something incorporeal he could not escape terms which imply corporeality.[13] It was much later that the idea clearly developed that spiritual or mental activity was not only not constituted by a physical organism but was even extrinsically independent of the latter. From the fragmentary knowledge we have of Anaxagoras we find that intelligence is distinct from sensation and cannot be gained from the latter since sense lacks the ability to distinguish the minute changes necessary for intelligent activity. The nous of itself governs and knows all things, is in all living things in varying degrees and is, of all things, alone pure and unmixed.

The historian Klemm in seeking the principle upon which these early partitions were made finds it in the most obvious observation of these philosophers that certain, now termed mental, phenomena can be "classed together in virtue of the possibility of passing from one to another of the contents within a group by intermediate gradations, whereas such a translation is impossible between members of one group and those of another." [14] Thus we may pass from

[12] Aristotle, *Metaphysics*, I, 3984b, 17 (Oxford Trans.).

[13] Zeller, *Pre-Socratic Philosophy*, II, p. 342 ff. Cf. also Sister M. T. A. O'Neil, O. S. D., *Pre-Socratic Use of Psyche*, p. 46 ff.

[14] *History of Psychology*, p. 47.

one feeling to another but not from one feeling, say of pain, to a sensation of blue. Whether or not this likely hypothesis actually represents the state of analysis at this time it is hard to say.

3. *Socratic Development*

Fifth and Fourth Centuries B. C.

As in all other phases of Greek philosophic thought our theory is now developed at the hands of the three great Athenian thinkers, Socrates, Plato, and Aristotle. The transition from Early Greek to Socratic philosophy effected by the turning away from the sole study of nature phenomena to ethics and dialectics helped to direct Socrates (c. 468 B. C.) to a more critical study of himself with " Know thyself " as his famous dictum. The ' nous ' of Anaxagoras is developed as a means of placing reason in the position of supreme ruler over human conduct. Since Socrates is before all things else a teacher of morals there would be an obvious advantage in this view. With his change in method to that of a more critical inductive inquiry which he applied to man's dignity and destiny he seems, certainly according to the reports of his nearest disciples, Plato [15] and Xenophon,[16] to have arrived at a belief in the immortality of the human soul; but of its nature and activities there is no evidence that he laid down any specific doctrine.[17] His chief contribution here lies in directing the thoughts of men towards themselves. These contributions were chiefly ethical and epistemological.

4. *Plato and the Academies*

Plato—If the philosophy of Plato is considered to be a completion of that of Socrates it is certainly a great advance upon it. Especially in his teaching upon the soul does Plato advance beyond the few indefinite observations ascribed to his teacher. At times, in the midst of controversies on other subjects, Plato gives evidence of the keenest psychological introspection in which the mental and physical are kept clearly distinct. The examples, still used by

[15] *Apol.*, 40.
[16] *Men.*, I, 42 ff.
[17] Zeller, *Socrates and the Socratic School*, p. 178.

psychologists, with which he illustrates his point give further evidence of his remarkable grasp. Yet the account of the great thinker is still far from scientifically definite. His views underwent much change during the course of his career and are generally colored by his moral and esthetic opinions. These latter frequently led him to symbolize the soul in fantastic myths. At times he seems completely to reverse his position. His interpreters, from Aristotle down, are far from agreeing upon even the most fundamental points in his doctrine. This is not at all strange when we remember that he was not a professional psychologist. Aristotle attempts to divide the various writings, which seem to be arranged upon no preconceived plan, into dialectics, ethics and physics.

It is particularly in *Timaeus* and the *Republic* that we find Plato's views upon the soul's activities. Nowhere is there a more conglomerate mixture of fact and fancy and even conflicting views. If, as has been asserted, he borrows his terminology from the Pythagoreans, especially Aresas of Croton, we may suppose that he borrows much from their doctrine as well. However, the vague suggestion of the incorporeality of the 'nous' as noted in Anaxagoras is in Plato much more clearly indicated. In the problem of classifying mental activities, Plato presents in his various writings several lists or partial lists. These are usually given as obiter dicta in dialogues where other problems are occupying his mind. In the *Republic* alone three somewhat different classifications are given: (a) A tripartite division as reason, passion and appetite;[18] (b) knowledge, opinion (sense perception) and ignorance;[19] (c) thinking, understanding, belief, and conjecture.[20] In the *Sophist*[21] he considers thought, opinion, and imagining (the latter a combination of opinion and sensation) to be the activities.[22] His *Philebus* gives the most detailed list: sensation, memory, imagination, and recollection. Theatetus[23] mentions knowledge or reason and opinion or sense perception. Here he argues with remarkable insight, for the distinction between sense perception, which requires sense organs, and other activities of the soul which are carried on without such sense organs, e. g. apprehension of

[18] *Republic*, 434c-445E.
[19] *Op. cit.*, 477a.
[20] *Op. cit.*, 511D and 534E.
[21] *Sophist*, 263E. seq.
[22] *Phil.*, 33-44c.
[23] Thaet., 184B-197E.

being and non-being, bad and good, number, identity, and diversity. In *Timaeus* where Plato gives his most extended psychological discussion the distinction is deepened between reason as ceaseless motion and sense which gives rise to opinion. The one deals with the universal, the other with the particular. Only the gods, however, and "a very small portion of mankind" possess reason.

In the *Republic* Plato pictures the immortal soul of man as being derived by the Creator of the Universe Himself from the World Soul. Because of sin it was doomed to imprisonment in the body. Thereafter other mortal souls arose which were not merely powers of the immortal soul but actually separated parts with entirely separate centers of action in the body. How far this is to be taken seriously is a question. It may be well to present this statement of his view exactly:

"Then we may infer that there are two (principles) and that they differ from one another; one of them we may call the rational principle of the Soul and the other, which accompanies certain pleasures and satisfaction, is that with which man loves and hungers and thirsts and feels the emotions of desire and may rightly be termed irrational and appetitive. . . .

"Then let these be marked out as the two principles which there are existing in the soul and what shall we say of *passion* or *spirit*? Is that a third or akin to one of the proceeding. . . .

"But a further question arises—Is spirit (passion) different from reason also or only a sort of reason, in which case instead of three principles in the soul there will only be two—the rational and the concupiscent—or rather as the state was composed of three classes, trades, auxiliaries and counselors, so may there not be in the individual soul a third element which is passion or spirit and which is auxiliary of reason when not corrupted by education. . . .

"Yes, I replied, if passion shown to be different from desire turn out also to be different from reason the principles which exist in the state like those in the individual are three in number and the same with them.[24]

"Now of the divine (reason or intellect) He, (God) Himself was Creator, but he committed to his offspring the creation of the

[24] *Republic*, IV, 439B-441.

mortal. And they imitating Him received from Him the immortal principle of the soul; and around this they fashioned a mortal body, and made the whole body to be the vehicle of the soul; and constructed within, a soul of another nature which was mortal, subject to terrible and irresistible affections; full of all pleasure, the greatest incitement of evil; then pain which deters from good; also rashness and fear, foolish counselors, anger implacable, and hope easily deceived by sense, without reason, and all-daring love; these they mingled together according to the necessary laws and framed man. Wherefore, fearing to pollute the divine any more than is necessary they separated the mortal nature and gave that a habitation in another part of the body, placing the neck between them to be the isthmus and boundary line which they constructed between the head and the breast that they might be kept distinct. And in the breast . . . they encased the mortal soul. That part of the inferior soul which is endowed with courage and spirit and loves contention . . . they settled near the head . . . in order that it might be under the control of reason." [25]

Hence when the immortal soul (nous) is imprisoned in the body, sensuality and passion spring up along side of it as an inferior soul. This gives us then, two different modes of cognitive activity: (1) the immediate contemplation of Ideas by this immortal soul through which true knowledge is attained; (2) the awareness of objects of the sensible world by the inferior or mortal soul in conjunction with bodily organs. These latter cognitions further approached true knowledge only in so far as they aroused reminiscences of the Ideas of which they were shadows or reflections. Noting further the difference in characteristics of phenomena attributed to the inferior irrational soul Plato of necessity divided it into a noble and an ignoble part.[26] The noble part, steed of Phaedrus, is Courage or vehement Will, in which is located also anger, ambition, love of glory and the better and more powerful passions generally. It has a close relation with the reason (nous) and an instinct for the great and good.[27] The ignoble part of the mortal soul includes all the sensuous appetites and passions—those

[25] *Tim.*, 69E ff.
[26] *Rep., IV*, 438D seq.; *Tim.*, 69c seq.
[27] *Rep., loo. cit.;* Phaedrus, 246 seq.

powers under the sway of sensible likes and dislikes. This part is located in the lower regions of the body. Proof of the complete separability of these three powers is offered in the fact that reason in man is often in conflict with desire, that courage often acts blindly without rational direction. However, when in service of reason, courage often assists in opposing desire. Now since the same principle in the same relation can only have the same effect, there must be a particular cause underlying each of the three activities of the soul.[28]

Zeller, in accounting for the theory, finds it in keeping with the whole Platonic system. "As the Idea stands abruptly in opposition to the Phenomenon, the soul, as most nearly related to the Idea, cannot have the sensible principle originally in itself. Hence discrimination of the mortal and immortal parts of the soul. If, however, the soul has at any time received into itself this sensuality (as is certainly the case), a mediating principle must for a similar reason be sought between the two. Hence within the mortal soul, the second division of the noble part and the ignoble." [29]

Each of the three parts has various subdivisions. Sensation is a part of desire, opinion of courage or the willing soul, and knowledge of reason. Herein, Plato shows advance in precision over the Pythagoreans not only in invoking the principle of division upon the basis of empirical differences found among different psychical processes which make it impossible to pass from one group to the other, but also in invoking the less obvious principle that within any given group,—e. g. the cognitive processes, a number of different steps can be distinguished. With Plato, however, the purely psychical could not be considered wholly in itself. Since his philosophic interest was chiefly ethical, it is evident that the ethical is here also the most fundamental basis of division, namely the differences in direction of moral combat as shown by reason on the one hand and by the sensual desires on the other.[30]

It is evident that the Platonic tripartite soul of reason, will, and desire is an anticipation of the modern classification of psychical processes into cognition, feeling and desire, without however im-

[28] Cf. Zeller, *Plato and the Older Academy*, p. 415.
[29] *Ibid., loc. cit.*
[30] *Timaeus*, 70a ff.

plying the modern metaphysical basis upon which the earlier division rested. We may also note that the assignment of anatomical regions to each of the groups of psychic processes was a very general teaching in all the psychology of antiquity. In the degree in which the latter insisted upon a completely separate source for the various mental phenomena it also insisted upon completely distinct bodily locations. It may be interesting to observe that the very modern school of behavioristic psychology—while denying a real distinction between psychical and physical phenomena—has insisted that what is taken to be psychical is by no means localized in the central nervous system but is much more diffused throughout the body,—notably in the various glands.

Plato did not attempt to explain how the various parts were united to make a single individual personality. If the seat of personality and self-consciousness lies in the reason, which existed first and without the lower powers, how it became one with them is difficult to see unless it be considered that each part is characterized by a peculiar form of desire and a form of pleasure compatible with the part in which it inheres. It might be supposed that once the three parts were resident in the living body these two elements, common in a way to all three, could somehow affect the union necessary for the individuality of person.

According to the view of McDougall, the whole Platonic doctrine of the soul is best understood as part of Plato's theory of being which supposes the soul to be the mediator between a class of being composed of timeless unchanging Ideas and a realm of becoming to which the human body along with all objects of sense perception belongs.[31] Hence it partakes of the life of both regions and though in itself it is clearly immaterial it is apparently of a somewhat different nature from the world of Ideas. This peculiar position of the soul would then be the basis of its two different kinds of cognitive activity distinguished as reason (nous) and sense (aisthesis). Harking back to the teachings of the early Greek philosophers Plato made place also for the soul as principle of movement. But since the soul is now no longer thought of in terms of material atoms it is not itself in motion but is only the generator

[31] *Body and Mind, A History and Defense of Animism*, p. 17.

of motion. Aristotle in *De Anima* [32] where he sums up Plato's position on *Timaeus* fixes the older materialistic view upon his teacher. Hicks in his Introduction to *De Anima* (p. xxxvi) rightly insists that the difference between the two is largely a verbal dispute. Both agree that thinking belongs to the soul's essence. Both agree that the soul is immortal, that it is a separate self-contained being. But Plato insists on using the materialistic word 'movement' with reference to thought, whereas Aristotle would substitute the better word 'energy' or activity. The meaning is the same for both. Perhaps the pupil is rather hypercritical of the terms used by his teacher.

5. *The Older and Middle Academies*

Plato's philosophy in all its details found many interpreters in the Older and middle Academies. Especially was this true of his more matured teachings. Speusippus, his nephew, and his immediate successor in the Academy, recognizing the difficulties accompanying the complete cleavage between the parts of the soul, attempted to clothe all three divisions with immortality. Xenocrates adhered more strictly to the Platonic views. Heraclides returned to the older Pythagorean view of the soul as one luminous ethereal essence coming from the Heavens. All these philosophers are over-shadowed by the mightiest genius who now comes upon the stage in the person of Aristotle.

[32] *De Anima*, 406b, 26.

CHAPTER III

Aristotle as the Author of the Theory of Faculties

With Aristotle it may be said that there was a first real appreciation of the nature of psychic phenomena and with that appreciation a first real enunciation of a theory of faculty in which this latter was truly distinct from the notion of 'parts' of soul that has characterized the theories discussed thus far. This was due to a wholly different orientation of the psychology of Aristotle from that of his predecessors, especially Plato. Aristotle himself clearly outlines this new attitude in his *De Anima,* which is prefaced by a review of opinions previous to his own time and which may be considered our first history of psychology.

While most of the ancient philosophers considered the soul as a principle of motion, there were mainly two different views as to what this meant. Leucippus and Democritus considered the soul's essence to be found in movement, in the belief that what is itself unmoved cannot impart motion to anything. The soul is a moving entity. According to Plato and the Platonists, the essence of the soul is self-movement or ability to move itself—an inherent movement. Says Aristotle: "Since the soul was regarded by these Platonists as at once the principle of motion and the principle of knowledge some of them included both these ideas in their definition and explained the soul as a self-moving number." [1]

But Aristotle shows that both of these views are erroneous. To impart motion, that is to be in some way the principle of motion, it is not necessary that the mover be in motion. Everything that is moved is moved in one of two ways: it is moved either by some other thing or from a principle within itself. Aristotle classifies movements as of four kinds: movements in place or translation; qualitative change or alteration; decay or diminution; and increase or growth. Further, all these movements are accomplished in space. If the essence of the soul is movement it must be one or several or all of these. In any case, the soul would then be spatial since movement is not accidental to the soul but is of its essence.

[1] *De Anima,* 403b, 20 ff.

But this is contrary to all facts of experience. "However, if the soul moves itself it must experience motion so that, on the supposition that every movement is the displacement of the object in motion in so far as it is moved, the soul must suffer displacement out of its essential nature, provided its self-motion is not merely accidental." [2]

Everywhere this ultimately mechanistic view of soul as principle of motion becomes more and more untenable. Observe even the simplest facts of mental activity, such as imagination. Always the latter shows traces of perception. But perception cannot be derived from extension. Nor can extension explain the synthesis or unity of one principle despite the multiplicity of mental phenomena of any one moment. Nor could intellectual activity or freedom be explained; and the denial of the latter would mean the rejection of the conditions and principles of morality.[3] Indeed thought, as Aristotle observes, seems more like rest and attention than like motion.[4] Thus it becomes necessary for Aristotle to reject both of these definitions. Dr. Clodius Piat in his treatise on Aristotle rightly observes, however, that Aristotle's objections to the Platonic conception have value only when one takes the term movement in its mechanical sense. But, according to this writer, it is certain that Plato does not so take it. "When he affirms that the soul 'moves itself' he wishes simply to say that it can determine itself in its work. Movement in this case signifies passage from potency to act or change. The criticism of Aristotle is then considerably lessened." [5]

In seeking a new orientation, Aristotle begins where his predecessors left off. Movement is the basis of division of all substances. Those which do not move themselves are inanimate. Those having the power of moving themselves are animate. This movement is manifest in the phenomena of nutrition, no less than in sensation or intellection. This power of moving self is evidently a special kind of energy over and above the purely physical. The latter can not explain the phenomena of this special energy. It is hyper-

[2] *De Anima*, 406b, 8.
[3] *Eth. Nic.*, Bk. 3, Chapters 3 and 4 (Chase tran.).
[4] *De Anima*, 407a 32.
[5] *Aristote*, p. 144.

physical. Further, from the lowest manifestation of this energy in plant life to the highest in man there is evidently an attribute, end, or purpose — the entelechy of Aristotle — which coördinates and directs the development — movement of growth — of the animate thing. This principle in various corporeal instruments exhibits varying degrees of power from mere nutrition to sensation and finally to thought. This is the soul. It is evidently incorporeal.

Here is noted a basic concept of all Aristotelian metaphysics in application. The corporeal element, whether it be plant substance or animal body or human body, is considered the passive or determinable principle, or matter, but nevertheless capable of receiving determination, whereas the incorporeal, hyperphysical, energy is the active or determining principle or form which gives the body its particular animate existence. However it must be clearly understood that these two principles do not exist apart but have only a notional separation. They may be compared to the convex and concave surfaces of one object. Hence the soul is defined as "the entelechy or first actualization of a physical body having power of life."[6] Thus Aristotle has moved from the old position of soul as principle of motion to soul as principle of life,—from the physical to the biological. The soul permeates every part of the body, vivifying it and informing it. How closely soul and body are bound together we may see from the definition he has given of soul. Indeed the question arises from that definition as to whether Aristotle believed that the soul could exist apart from the body. Aristotle is not clear or definite upon the point. How thoroughly modern he was in his teaching upon the interpretation of soul and body, how in accord with the best findings of modern psychology, is truly marvelous in view of the fantastic notions which were his inheritance. "In most cases," he says, "the soul apparently neither acts nor is acted upon independently of the body, e. g., in the feelings of anger, courage, desire or in a word, in sense-perception. Thought, however, appears to be a function which more than any other is the exclusive property of the soul. But if thought is a sort of representation in terms of a sense-image, or is impossible without this, then even thought could not exist independently of

[6] *De Anima*, 412a 20.

the body." [7] Hence it is that they constitute one complete substance.

But in changing his point of view from the soul as principle of movement to the soul as principle of life, Aristotle necessarily must consider all manifestations of life instead of human life alone as was the case with Plato's psychology. Other forms beside man possess life and hence there are other, if lower, forms of soul. The immense advantage gained in the change of position is that all divisions and gradations will no longer be artificial but will be those pointed out by nature itself. Thus Aristotle's theory as it concerns the powers of the soul is one of development or evolution. His classification follows that of the fundamental divisions in organic life as represented by its stages of development—vegetative, animal, and human. This is in keeping with his metaphysical principle that a thing may be known in its nature only through its activities: *Operari sequitur esse.* Life in nature presents to him certain dominant and essentially different and hence irreducible phenomena. The precise number of these seems to vary from three and five. As he expressly states, "There is a difficulty at the start concerning the sense in which we employ the term 'parts of the soul' and 'soul,' and concerning their number. For in a certain way they seem to be innumerable and not merely confined to those which certain writers distinguish, viz. reason, will, and desire, and others classify as rational and irrational." [8]

Despite this general indefiniteness the underlying notion is the same in all cases. At the bottom of this hierarchy of living things the lowest mode is plant life. This form possesses the power, 'the *dynamis*' as it is called, of nutrition. By this term Aristotle means to imply a potentiality or latent activity. It is something native and not acquired. It is a principle which informs the organic matter of the plant and gives it its peculiar being, its completeness. It is itself entirely organic, the simplest form of organic movement. This is the nutritive faculty. Through this power the plant is able to grow and reproduce itself. Its activity is a purely physical process, that of taking into itself corporeal substances for building

[7] *De Anima*, 403b 11.
[8] *De Anima*, 431a 22.

its structure and reproducing itself. The changes which take place are then quantitative.

Next above this form is animal life. Here we find a vital principle which not only possesses the power of quantitative change or movement expressed in nutrition and reproduction but an added power known as sensation. By sensation here is meant an organic, qualitative, change in the living form whereby it has the capacity to apprehend and interpret the external world. The capacity or potentiality generally functions through more or less specialized sense organs. Thus appears a second faculty—sensation. It expresses itself in five external forms of sight, hearing, taste, smell, and touch, of which the last is fundamental, and in the internal senses; the intimate, or central, sense which unites the data of the external senses; imagination or the power to reproduce absent sense objects and to receive and hold such images recognized as past experiences (sense memory). This classification is based upon the various properties which the different senses perceive. The latter are passive and must be stimulated and internally determined by some object which thus becomes the term of the act. Here is our first real psychological analysis evidently in harmony with the facts.

Aristotle's contribution to the advance of the theory has been summarized in a brief paragraph by Klemm: "Although the Aristotelian system offers no new distinctions it nevertheless possesses two advantages. In the first place, the idea of the unity of the soul is asserted, since neither of the faculties mentioned is capable of operating in independence of the rest. Secondly, there is a clear suggestion of the evolutionary point of view. The rough distinctions proposed do not, of course, completely solve the problem of classification, but with the contention that the higher faculties presuppose the lower is combined the thought that the human soul stands in the same relation to the animal soul as the higher faculties stand to the lower, so that here, too, the unifying idea of evolution tends to bridge over the dualism which would otherwise exist."[9] As this is a study in the philosophy of St. Thomas it is proper that the theory as he understood it should occupy the center of our attention. Hence we shall now pass on to his position in the light of the orientation which Aristotle has provided.

[9] *History of Psychology*, p. 49.

CHAPTER IV

Metaphysical Basis of the Theory of Mental Faculties in Mediaeval Psychology

1. *Potency and Act as Basis of theory.*
2. *Faculty as an accident of class quality in relation to substance.*
3. *Doctrine of Unity and Distinction as applied to the theory.*

(a) by Albertus Magnus and St. Thomas—(b) by Alexander of Hales and St. Bonaventure—(c) by Duns Scotus.

In order to grasp thoroughly the theory of mental faculties as held by St. Thomas it is necessary to recall certain points in his doctrine of metaphysics. This is all the more important in view of his insistence on the fact that our knowledge of a spiritual substance such as the soul and of its faculties is for the most part indirect. Even when positive, the information is based upon comparisons we make between the soul and the activities of material substances of which we have more direct knowledge. Indeed, in the last analysis, the theory of faculties itself is more a problem of metaphysics than of psychology in the sense in which the latter is understood today as a pure science separated from a philosophy of mind. This, however, is not to say that it is not a theory put forward to explain something real. In the Thomistic sense, as we shall see, a mental faculty was certainly real, truly existing and thus having real explaining power.

In the phase of metaphysics we shall have to deal with here St. Thomas follows Aristotle's metaphysics and hence it is in his Commentary upon that work, particularly Book IX, that we find our chief source of information, though of course additional explanations and clarifications are found in various other parts of his works. Hence this metaphysical discussion applies as well, in the main, to the view of faculties as held by Aristotle, except that the Thomistic analysis is naturally much more complete and precise.

Three points of metaphysical doctrine concern us here: (a) the doctrine of potency and act as the basis of the theory; (b) the doc-

trine of substance and accident in which mental faculties appear as a species of the class of accidents known as quality; (c) the doctrine of unity and distinction as applied to the relation between the substance of the soul and its faculties.

A. *Potency and act*—The nature philosophers of Ancient Greece, prior to Aristotle, in their attempts at representing reality were divided in their notions concerning real being. Some schools represented it as static, permanent, and changeless with all change as mere illusion. For others, being was dynamic, fluctuating and essentially changing or becoming, anything stable or permanent did not exist. Between the former,—the position of the Eleatic philosophers, — and the latter — that of Heraclitus and the later Ionians, — Aristotle considered that neither view was adequate. Hence he assumed an intermediate position which took both aspects of being into account as equally real. Some things are. Some things are becoming; they are moving towards their perfection. What is, was not and may not be is the true and evident picture of reality. Things are this way precisely because they are finite and limited. The change indicates imperfection, the stability partial perfection. "Evidently again, those who say all things are at rest are not right, nor are those who say all things are in movement." [1] We must strike a balance between the two doctrines.

This notion of what is not but what may be is at the bottom of the idea of change and also of the notion of potential being as distinct from actual being which is in existence. In the real sphere, a being is potential or possible not only because its actual existence involves no contradiction to the mind but also because there exists some other being or beings endowed with an active power of rendering this potential being actual. That which receives such action is called a passive potency; the agent that performs the action is called an active potency. The exercise by the agent is called the actio or action. Hence the terms are correlative and what is actuality in one case may be potentiality in another and vice versa. The dominant idea is that there is a release of some stored up energy under the influence of some efficient cause. This potential energy (not merely physical but any kind of latent power) becomes actual.

[1] *Meta.*, 1012b 22.

It is to be noted that this passive potentiality is not purely passive. Even while being acted on, while receiving the influence of the active potentiality it is itself also active. A proverbial example is that of the change of the acorn into an oak. It is not intrinsically impossible that an acorn should be an oak. The acorn then has such a passive potentiality. Clearly this power to receive is something very real. In some real though virtual sense the oak is in the acorn. For such actualization however, active forces or powers external to it are necessary, viz. the active powers in the soil, the rain, the sun etc. These are the *active potentialities.* The acorn receiving these influences, although often thought of as primarily passive, is also itself active at the same time that it receives such influences. The potential oak is in the powers of the elements and in the acorn. The actual oak—different from the acorn, and different from the powers of the elements—is the actuality or actus. Change in this system becomes the transition from the potential to the actual. Further, in any change there is a series of actualities. After the first actuality—called *actus primus* by the Scholastics—subsequent ones—*actus secundi*—would each in turn become *potentiae* with respect to the following ones and *actus* of those preceding. This distinctions between the *actus* (Gr. *energia, entelechia*) and *potentia* (*dynamis*) are utilized throughout the whole of Scholastic philosophy in its various divisions. It is difficult to secure an exact English equivalent. The meaning may be brought out by the use of the correlatives "completed" and "incomplete," "perfected" and "imperfect," "determinable" and "determined." To quote Aristotle: "Our meaning can be seen in the particular cases by induction, and we must not seek a definition of everything but be content to grasp the analogy,—that is, that which is building to that which is capable of building, so is the waking to the sleeping, and that which is seeing to that which has its eyes shut but has sight and that which is shaped out of the matter to the matter and that which has been wrought up to the unwrought. Let actuality be defined by one member of the antithesis and the 'potential' by the other."[2] Thus the child is potential to the actual man, essence is potential to the actual existence, matter similarly related to form etc. In no case

[2] *Meta.*, 1048a35-b5.

are the terms to be confined to the physical world; they are much wider, representing views of all finite reality wherever there is change.

Applying this doctrine to the soul we find that change in mental states or processes seems to be the commonest of facts, universally admitted. Further, to consciousness, some of these states or processes seem to be similar to, in fact mere repetitions of, one another; in some cases they seem to make use of the same bodily organ. Others seem to be decidedly different and use different organs. Nor are any of the processes constant. They are now active, now at rest, latent, or dormant. The soul has the power to act but is not always acting. This power to act in various distinct ways does not certainly disappear when it is not in action. Even the same process in action differs in intensity and duration in the same individual at different times. Yet they are clearly all processes of some one individual agent. This agent recognizes the processes as his own, refers them to his own activity, recalls that he has had some of them before. This brings us to the second point in the metaphysical basis of the faculty theory.

B. *Substance and Accident—Faculty as an Accident of Quality*—This mental experience—that a something persists in consciousness while some things constantly change, occurring, passing away, and recurring—is the basis of the real distinction in Aristotle and the Scholastics between substance as that which exists in itself and accident as that which needs something other in which to inhere, which something the accident modifies or determines in some way.[3] The distinction is probably first observed in the numerous things in the world about us before there is awareness of self as substance. It is later seen to apply to our mental changes so that substance and accident are said to divide all reality. They are the *genera suprema* of reality—each a reality in itself and each with its own essence but existing each in its own particular way—the one having being not in another and the other having being in another,—the one an *ens*; the other an *ens entis*. The being of the substance is

[3] Substantia est res, cuius naturae debetur esse non in alio; accidens vero est res, cuius naturae debetur esse in alio.—St. Thomas, *Quodlib.* IX a 5 ad 2.

more truly being than is the being of the inhering, determinining, modifying accident.[4] The idea of substance indeed is arrived at by abstract conception, by inference from knowledge of perceived accidents, relatively persistent amidst changing accidents, yet not the less active. It is because we do not know the nature of substance directly but only conceptually through the accidents that it is difficult for us to grasp this undeniable fact. Hence, even though we do conceive substance as stable, we must abstain from visualizing it as some kind of a core or kernel, an inert substratum—as did Descartes—into which activity is somehow injected from without. On the other hand, while an actually existing substance is not inert, neither is its essence movement or activity, as Leibniz asserted in his nomad theory of substance. Neither is persistence or stability, absolutely speaking, its character,—as Kant and Spencer held. Only relatively to accidents is substance ordinarily more stable. Further, finite substance is an *ens in se,* not in the sense that it is uncaused or self-existent but *in se* only after it is already in existence. Only then is it intrinsically independent of any material cause for its support. It still has extrinsic dependence.

The activity of the substance in the Aristotelian and Scholastic metaphysics is seen in the application of the doctrine of *actus* and *potentia* to the essence of the substance itself. Every corporeal substance is considered as composed of two principles, a determinable potential principle, known as the *materia prima,* and an actualizing, determining principle, called the *form.* The two principles taken together constitute the substance. Thus in man, the body is the potential or material principle, and the soul the actualizing, vivifying, formal principle. Hence man is a composite, neither principle alone making him man as such, both being equally necessary. Nor is either less a substance because each is incomplete in itself. Substantial change must be a change in one of these constituents. The substance of man as form, dynamically considered as the source or principle of his activities, is known as nature.

[4] Illius proprie dicitur esse, quod ipsum habet esse, quasi in suo esse subsistens. Unde solae substantiae proprie et vere dicuntur entia; accidens vero non habet esse, sed eo aliquid est, et hac ratione ens dicitur; sicut albedo dicitur ens quia ea aliquid est album. Et propter hoc dicitur in *Metaph.*, lib. VII 2 et 3 (Arist.), quod "accidens dicitur magis entis quam ens."—*Summa Theol.*, I, q. 90, art. 2.

Now all the changes, modifications, or determinations of any substance are evidently not substantial in that they are not so fundamental and far-reaching. We say these determinations inhere in the substance without changing it substantially. This kind of determination is the *ens entis* of which we have spoken, belonging to the class of real beings called accident. Again, this inherence is not to be visualized as something contained within a container. Both substance and accident are realities, each with its own existence. The latter, however, has a less independent existence, since in the ordinary course of things it has a natural exigence to inhere in a substance if not always actually so inhering. Referring to what we have said of substance we noted that it has a substantial actualizing principle, its form. Accidents are further secondary actualizations or determinations of the substance, some of them determinining it more fundamentally and some less. Thus, as the relation between the two constitutive principles of the substance is that of actus and potentia, so the relation of accidents to the substantial form is that of accidental actus to potentia.

Of the various classes of accidents which constitute the nine divisions or supreme genera of accidents, we are concerned only with one of them namely, the accident of quality. It was to this class that most Scholastics, notably St. Thomas, assigned the mental faculties. Some of these various accidents inhere in the material principle, e. g. quantity,—that accident of corporeal substances in virtue of which they exist by having part outside of part in space. In this important accident many others inhere immediately and hence only mediately in the substance through quantity, e. g. color, weight, etc. Quantity answers in a general way the question: *Quanta est ista res?* How large is that thing? Quality is an intrinsic accident inhering in the form or perfecting principle, to which it is closely related, flowing from it as a property of it. It answers the question: *Qualis est ista res?* Of what *sort* is that thing, or in what condition is that thing? Numerous accidents are included in this class; but if we study them we shall find that they have the common note of disposing the substance well or ill in the way of its natural perfection or full attainment. They do not change the essential perfection but they change its accidental perfection—a change known as alteration: *accidens*

modificativum seu dispositivum substantiae in seipsa. Efforts have been made to reduce this accident to quantity or to mechanical and spatial motions or matter but the attempts seem to be in vain.

Aristotle notes four general classes of quality [5] which he later reduces to a primary and a secondary class. St. Thomas quotes Simplicius in the latter's commentary on Aristotle's Praedicamenta (chapter on quality) as placing dispositions and habits among the four species. The Angelic Doctor finds the whole discussion faulty and offers his own reasoned account of the Aristotelian division after taking up the objections to the placing of habit as a determined species of quality.[6] Qualities, he says, are certain accidental modes of a substance by which it is perfected in its existence and activity. We distinguish the various qualities according to the various ways of looking at substance: (1) Its nature itself as perfectible giving rise to the quality of acquired habits and dispositions which perfect the nature by disposing it well or ill in its relation to its last end—e. g., vice, virtue, health, knowledge, etc.; (2) Those intrinsic principles whereby the substance acts and receives action, principles grounded in the formative factor of the substance, giving rise to the qualities of intrinsic natural forces, powers, aptitudes, faculties, e. g. intellect, will, imagination, organic vital forces, physical, chemical and mechanical energies according as the substance is animate or inanimate; (3) Aspect of substance as receiving change by reason of the above action—a receptivity fixed in its material principle—giving rise to the quality known as the 'sensible qualities' of matter, e. g., color, taste, temperature, odor, etc., and to the sensible quality of passions, emotions such as pleasure, pain, anger, etc., in living sensible things; (4) the quantity aspect of a substance in which the qualities of form or

[5] *Meta.*, 1020a, 33b 25.

[6] Proprie enim qualitas importat quemdam modum substantiae, modus autem est, ut dicit August. 4 sup Gen. ad literam (Cap. 3 in med.) quem mensura praefigit: . . . Modus autem sive determinatur esse accidentale potest accipi vel in ordine ad ipsam naturam subjecti: vel secundum actionem et passionem quae consequuntur principia naturae quae sunt materia et forma; vel secundem quantitatem; si autem accipiatur modus vel determinatur subjecti (al. objecti) secundum quantitatem, sic est quarta species qualitatis.

shape inhere directly in the accident of quantity and hence only indirectly in the substance.[7]

It is necessary to add a few additional words to this rather imperfect classification in view of the fact that some qualities may be placed in various classes according as we regard them as active or passive. There would seem to be no doubt about the real existence of the first species of qualities known as dispositions and habits. Especially of the latter St. Thomas treats at considerable length in view of the important bearing of habits on moral life. The distinction between the two seems to him to be one of kind rather than of degree only, the difference being in the relatively transitory character of the disposition and the more permanent and stable nature of the habit.[8] The constant flux of things is nowhere more apparent than in human consciousness itself. In the changes which take place in inanimate things, and in living things below the level of human beings—all the result of action of efficient causes upon them—there seems to be a determination to fixed courses of action. By the constant exercise of this change, however, even some inorganic things do seem to acquire a more ready receptiveness for change which might be called a 'set'—as in the smoothness of the ease of a used mechanical instrument, or the 'fold' of a paper, etc. In the lower animal this tendency towards a fixed course of action might be sensuous disposition. In any bodily organism constant repetition of action 'disposes' the organism to easier exercise of that action. This acquisition is of the species of quality called disposition.[9] Something more is required for habit,

[7] Aristotle's *Metaphysics*, Book V, Lectio XVI and Commentary of St. Thomas on the same in his *In Metaphysicam Aristotelis Commentaria* and his *Opusculum Totius Logicae Aristotelis Summa Tractatus I*, Caput I to IV. The reasons for the divisions of quality as here presented are given in *Summa Theol.*, Ia-IIae, q. 49, art. 2.

[8] (Disposito et habitus) possunt distingui sicut diversae species unius generis subalterni ut dicantur *dispositiones* illae qualitates primae speciei quibus convenit secundum propriam rationem ut de facili amittantur; quia habent causas transmutabiles; ut aegritudo et sanitas; *habitus* vero dicantur illae qualitates quae secundum suam rationem habent quod non de facili transmutentur, quia habent causas immobiles; sicut scientia et virtutes; et secundum hoc dispositio not fit habitus. *Summa Theol.*, Ia IIae, Q. 49, art 2 ad 3.

[9] Vires naturales non agunt operationes suas mediantibus aliquibus

strictly speaking, than for disposition. This is found in the fact of choice of action in human consciousness, that is, in the ability of mental activity of a higher type to submit to action outside itself or to forego such action. In other words, in order that a habit may grow up there must first have been an ability to choose between two or more proposed courses of action or to forego such action entirely, i. e., free will.[10] Upon this basis the habit is the result of free activity which leaves a trace of some kind and thus leaves a tendency to a repetition of that mode of acting. It is a modification of some kind in the being which we call 'disposed'. "It really adds something, namely, a power, a tendency which was not there before. . . . Such a modification is not transitory, like the state of which it is the result, but permanent and lasting. It connects transitory states of consciousness, and thus enables us to revive the past and even to a certain extent to foresee the future."[11] Hence Dubray defines it as 'the power which a subject possesses as the result of past activity, to reproduce the same process, to recognize the present state of consciousness as identical with or rather similar to a previous state."[12]

To attain a habit, however, the action must as a rule be repeated many times with the effect that reproduction becomes progressively easy and generally automatic and unconscious. Both habit and disposition seem to be necessary postulates in mental activity if we are to explain the commonest phenomena, such as memory, recall, and, in general, the utilization of past experience.

In the case of man, where some of the operations of the formal spiritual principle or soul were considered to take place through the material principle or body directly, it is more correct to say that the habit is primarily of the formal spiritual principle only and not in the bodily organ. If habit is predicated of these bodily

habitibus; quia secundum seipsas sunt determinatae ad unum. *Summa Theol.*, Ia IIae, Q. 49, art. 4 ad 2.

[10] Maxime habitus inveniuntur in anima, in quantum anima non determinatur ad unam operationem, sed se habet ad multas. *Ibid.*, Ia IIae 50, art. 2.

[11] Dubray, *Theory of Psychical Dispositions*, p. 110.

[12] *Ibid.*, p. 110.

activities it is because they are under the direction of the higher activities of the formal principle.[13]

However, the lower animal which carries on all of the activities of its formal (life) principle through material organs cannot strictly have habits but only organic dispositions. This would be true even when the animal was guided by habits in man.[14] The material or potential principles in things also have latent qualities which predispose them to reception of a substantial form and without which they could not be joined to a particular form, e. g. chemical affinity in material substances or bodily health in the organism. These latter must be kept distant from both habits and dispositions.[15]

[13] Vires sensitivae dupliciter possunt considerari: uno modo secundum quod operantur ex instinctu naturae; alio modo, secundum quod operantur ex imperio rationis. Secundum igitur quod operantur ex instinctu naturae, sic ordinantur ad unum sicut et natura; et ideo sicut in potentiis naturalibus non sunt aliqui habitus ita etiam nec in potentiis sensitivis, secundum quod ex instinctu naturae operantur. Secundum vero quod operantur ex imperio rationis, sic ad diversa ordinari possunt: et sic possunt in eis esse aliqui habitus quibus bene aut mali ad aliquid disponuntur. *Summa Theol.*, Ia Iae, Q. 50, art. 3. . . . Habitualis dispositio requiritur ubi subjectum est in potentia ad multa. Operationes vero quae sunt ab anima per corpus, principaliter quidem sunt ipsius animae, secundario vero ipsius corporis et ideo dispositiones ad tales operationes principaliter sunt in anima: habitus autem proportionantur operationibus; unde ex similibus actibus similes habitus causantur ut dicitur in 2 Ethic cap. 1 et 2; in corpore vero possunt esse secundario inquantum scilicet corpus disponitur et habilitatur ad prompte deserviendum operationibus animae. *Summa Theol.*, I, Q. 50, art. 1.

[14] Quia bruta animalis a ratione hominis per quamdam consuetudinem disponuntur ad aliquid operandum sic vel aliter, hoc modo in brutis animalibus habitus quodammodo poni possunt: inde August. dicet in lib. 83 QQ. (9. 36) quod videmus immanissimas bestias a maximis voluptatibus abstinere dolorum metu, quod cum in earum consuetudinem vertitur, domitae et mansuetae vocantur. Deficit tamen ratio habitus quantum ad usum voluntatis: quia non habent dominum utendi vel non utendi; quod videtur ad rationem habitus pertinere; et ideo, proprie loquendo, in eis habitus esse non possunt. *Ibid.*, I, Q. 50, art. 3 ad 2.

[15] Unde qualitatis simplices elementorum, quae secundum unum modum determinatum naturis elementorum conveniunt, non dicimus dispositiones vel habitus, sed simplices qualitates. *Ibid.*, I, Q. 49, art. 4.

We have treated the quality of disposition and habits at some length because of the close relation which, as we shall see, they bear to the second class of qualities,[16] certain of which form the subject of this discussion, viz. those intrinsic natural aptitudes capacities, powers, or forces (dynamis, potentia, facultas) or inaptitudes or impotencies (adynamia, impotentia), the so-called faculties. By inaptitude or impotency we mean not complete negation of power but only potentialities of a less degree in intensity. These qualities, we have said, are accidents of the nature of a substance by reason of the fact that the nature is considered as a principle of action or reception of action. Now the soul of man, being the formal or actualizing principle of the one completed human being, is thus the source directly or indirectly of all activities. It is the fountain head of all the energy of the individual. But the question is raised as to whether the energy is all of one kind or of several kinds and as to whether the soul is the immediate and proximate source or the remote, more ultimate, source. The second of each of these alternatives seems to be the truer statement of the case. Some of the modes of this energy are quite different from others. The energy is spent through several channels. It is this notion which gives rise to the idea of faculties as proximate sources of the soul's activity. Thus St. Thomas defines faculty in general as "nothing other than the principle of operation of anything whether it be active or passive; not indeed the principle which is the active or passive subject but that *by which* the agent acts or the passive subject endures; just as the building art is a power in the builder who builds through it.[17] Applied to the soul, to which it is most correctly attributed, a faculty is then "a proximate principle of the soul's operation."[18] It is an accidental form

[16] (Potentiae animae) sunt in secunda specie qualitatis quae dicitur potentia vel impotentia naturalis. *Quaes. Disp. de Spirit Creat.*, art. 11.

[17] Potentia nihil aliud est quam principium operations alicuius sive sit actio, sive sit passio; non quidem principium quod est subjectum agens aut patiens; sed id quo agens agit aut patiens patitur; sicut ars aedificativa est potentia in aedificatore qui per eam aedificat. *Quaes. Disp. de Anima*, art. XII.

[18] Potentia animae nihil aliud est quam proximum principium operationis animae. *Summa Theol.*, I, ques. 78, art. 4.

for further actualizing the substantial form, the soul itself. From these definitions of St. Thomas it is clear that the faculties are not essential parts of the soul but potential parts—i. e. of its energy.[19] All the energy they need is drawn from the energy of the soul itself. They tap, as it were, the one source of psychic energy. With St. Thomas, the whole energy is not involved in each act and so we may conceive it as flowing through various channels which by analogy are the faculties.

Certainly these native accidental forms are not naturally separable from the soul itself as is the case with the first species of qualities, viz, habits and dispositions. These latter are acquired capacities, and are therefore clearly gained in the course of the soul's activity. As such, they can be lost. This separability is a clear indication of the real distinction of such habits and dispositions from the substance of the soul itself.[20] There is no doubt that they are absolute accidents of the soul which not only determine it but also have some entity of their own. But the faculties are innate, inherent, powers resident in the soul from the beginning of its existence. When the soul was spoken of as a 'tabula rasa' at birth this referred to an actual mental content and in no sense excluded the capacities for mental activity which were the faculties. But the extent of their distinct reality was controverted by the Scholastics. As we have just thought of them they are absolute intrinsic accidents just as are habit and disposition, with the difference that faculties are innate powers instead of acquired. They would be, furthermore, proper accidents in that they flow necessarily from the substance in some such manner as effect from cause. They would thus, in some real way, have an entity of their own; yet they are so grounded in the substance that the substance does not exist without them nor they without it. This is certainly the way in which several modern interpreters of Scholasticism regard them. Since it is important that we get exact conceptions here, we are

[19] Potentia animae dicuntur partes non essentiae animae sed totalis virtutis eius; sicut si diceretur quod potentia ballivi est pars totius potestatis regiae. *Ques. Disp. De Spirit. Creat.*, art. 11 ad 19.

[20] Quidquid dicatur de potentiis, animae tamen nullus inquam opinatur, nisi insanum, quod habitus et actus animae ipsa eius essentia. *Ques. Disp. De Spirit. Creat.*, art. II ad 4.

justified in quoting several of these interpreters at some length. "The proposition that our soul possesses different faculties means nothing else than that our soul is a substance which as active principle is capable of exerting different kinds of acts. . . . If the soul produces in itself acts of perception then it must also have a quality corresponding to this effect and this quality must be something real in it, an objective reality; otherwise a stone would be able to have as well an act of perception. To deny the quality while admitting its expression is to say that such a faculty of perception is nothing other than the sum of its acts, which is the same as positing accidents without a substance, effects without a cause and of speaking about appearances and act while the subject, the principle itself, is abolished." [21]

Maher thus defines his understanding of the question: "We believe that, once the reality of the mind as a permanent indivisible energy is admitted, the assumption of faculties when properly explained is unassailable. A mental faculty or power is not of the nature of a particular part of the soul, or of a member different from it as a limb is distinct from the rest of the body. It is not an independent reality, a separate agent, which originates conscious states out of itself apart from the mind. But neither is it merely a group of conscious states of a particular kind. It is simply a special mode through which the mind itself acts. 'It is admitted by all that a faculty is not a force distinct from and independent of the essence of the soul, but it is the soul itself, which operates in and through the faculty' (Gutberlet's 'Die Psychologie,' p. 4). A faculty is in fact, the proximate ground of some special form of activity of which the mind is capable. That we are justified in attributing to the soul faculties in this sense is abundantly clear. Careful use of our power of introspection reveals to us a number of modes of psychical energy radically distinct from each other and incapable of further analysis. To see, to hear, to remember, to desire, are essentially different kinds of consciousness though all proceed from the same source. Sometimes one is in action, sometime another, but no one of them ever exhausts the total energy of the mind. They are partial utterances of the same indivisible sub-

[21] Jungmann, S. J., *Das Gemüth und das Gefühlsvermögen der neueren Psychologie*, p. 15-16.

ject. But this is equivalent to the establishment of certain distinct aptitudes of mind." [22]

Since, unlike the habits and dispositions, the faculties are innate powers and hence naturally inseparable much less reality may be asserted of them. Are they indeed anything real apart from the soul's essence; and, if not, what kind of distinction if any applies here? Can there be any real sense in which the substance and its proper accidents, its faculties, are really united if they are also really distinct? These questions are at the very center of our problem and need to be set forth very definitely, especially in view of the fact that some of the most strenuous objections to the faculty theory seem to be due to a misunderstanding of the metaphysical doctrine involved. This doctrine, which, no doubt, appears somewhat subtle to modern minds unaccustomed to the metaphysical discipline, is none the less valid. The questions raised are part of the whole fundamental problem of unity and distinction, of being as one and as manifold. Our purpose here, however, is to set forth only such portions of the wider problem as touch upon the theory under consideration. If the more representative Scholastics were fairly agreed upon what unity and distinction meant, they certainly were not always in entire agreement upon the manner in which these fundamental notions were exemplified in the relation between the soul and its faculties. Hence, after stating the generally accepted doctrine on unity and distinction and the way in which St. Thomas applied that doctrine to the faculty theory, we shall find it clarifying to set down the opinions of some of those who opposed his view entirely or who modified it to any great extent.

C. *Doctrine of Unity and Distinction As Applied to the Theory by:*

(a) Albertus Magnus and St. Thomas.

1. The one says St. Thomas, following Aristotle, is that which is indivisible in itself and divided from all others.[23] Unity involves

[22] *Psychology*, p. 35.

[23] Unde sicut ens dicitur *unum* inquantum est indivisum in se ita dicitur aliquid inquantum est ab aliis diversum. *Quaes. Disp. De Veritate*, q. 1, art. 1.

the negation of identity of being with another being. If it is divided it is no longer a simple being but composite.[24] There are however various kinds of unity or various grades of perfection in the unity which different beings present to us. The most important are: (a) essential unity—*unum per se*— and (b) accidental unity—*unum per accidens.* Essential unity, again, may be simple or composite and still remain in both cases essential. Thus the unity of the essence of the soul is simple essential unity. The unity of man is a composite essential unity in that, like all other corporeal substances, it is composed of an indeterminate or material principle and an informing principle, each really distinct yet really united with the other to make up the complete substance. Accidental unity, on the contrary, is such that the union of the factors constituting the unity does not result in one essence. Such accidental unity exhibits various grades: e. g., (a) mechanical unity, as of a heap of stones, a crowd of men; (b) artificial unity, as of the parts of a building united to make one building; (c) natural or physical unity: that of a substance with the proper accidents which belong to its nature. In this latter class St. Thomas places the faculties of the soul.[25] Hence while the union is accidental, as being between a substance and its accidents, it is none the less real. Neither is it what it has so often been conceived to be by many modern critics, viz., the mere mechanical unity of aggregation. It is more comparable to the organic unity of the living material organism which, while it is composed of a multitude of extended parts that might be considered as obstacles to unity, nevertheless has a real internal unity resulting from its substantial

[24] Unum quod convertitur cum ente ponit quidem ipsum ens sed nihil superaddit nisi negationem divisionis. *De Potent.*, Q. 9 a 7. Omne ens est aut simplex aut compositum. Quod autem est simplex est indivisum et actu et potentia. Quod autem est compositum non habet esse quamdiu partes eius sint divisae, sed postquam constituunt et componunt ipsum compositum. Unde manifestum est quod esse cuiuslibet rei consistit in indivisione. Et inde est, quod unumquodque sicut custodit suum esse **ita custodit suam unitatem.** ***Summa Theol.*, P. I. q. 11, art. 1.**

[25] Si potentiae animae non sunt ipsa essentia animae sequitur quod sint accidentia in aliquo novem generum contenta. Sunt enim in secunda specie qualitatis, quae dicitur potentia vel impotentia naturalis. *Quaes. Disp. De Spir. Creat.*, art. 11.

form. *A fortiori* then, the soul and its faculties, not being extended in parts, because spiritual, but being respectively substantial and accidental forms only, present a still higher, more perfect, grade of real, though accidental, unity. On this question of accidental unity practically all the representative Scholastics were agreed. It is not a unity as perfect as essential unity of substantial principles; nor is it comparable to the most perfect unity of pure actuality or pure form which is conceived in the case of God in whom there is no passage from potentiality to actuality and hence no change, in whom there is no distinction of substance and of accident for the attaining of perfection. Yet, because the soul and its faculties represent a relatively high grade of reality, they have a relatively high grade of unity.

Possessing this recognized high degree of unity, it is nevertheless evident that the soul and its faculties were represented by all the prominent Scholastics as having some kind of distinctness. The apparent paradox is thus briefly stated by Coffey: "Nevertheless, even though the unity of the concrete spiritual substance and its faculties be so far higher than a mechanical or even organic unity, it is not perfect. Even though the faculties of the soul be determinations of its substance, even though they flow from it as actualities demanded by its essence for the normal and natural development of its being, still it is a complete subsisting essence of its kind without them; it possesses its essential perfection without them, so that however intimate be their union with it they can never form one essence with it; it needs them only for the fuller development of its being by acquiring further intermediate perfections and thus attaining to its final perfection." [26] This brings us then to our second consideration—distinction.

(b) *Distinction*—Just as there are various kinds of unity, so there are various kinds of distinction which are generally recognized. Distinction generally is the absence or negation of identity, e. g., a certain thing is not another thing. It brings out the relation of the one to the other. Now if this individuality actually exists outside the mind, if it is not *made* but only *discovered* by the mind, the *distinction* is said to be an absolutely real distinction.

[26] *Ontology*, pp. 250-251.

It is then a distinction given by experience. But the obvious fact is that the mind itself is a separating, dividing, analyzing agent in one of its chief activities, for the reason that it cannot grasp even one thing in its absolute unity and entirety. It is under the constant necessity of decomposing or dividing the unity in a thing in order that it may seize in a piecemeal fashion the thing to be known. This most distinctive mental activity is known as the process of abstraction. It is a kind of illumination which by lighting up the object enables us to see the essential structure.[27] The result of the activity is a concept. Hence the mind might have several concepts of one and the same reality. These are not separate in the thing but are thought of as separate simply because of the limitation of the mind's manner of thinking. This kind of a distinction is known as the purely logical or mental distinction, e. g. the distinction between the logical subject and the logical predicate of a judgment.

Aside from the real and the logical distinction, the Scholastics recognized a third kind which they called the virtual distinction. This is essentially a logical distinction in that it is made by the mind itself and does not exist in the thing. Yet the reason for making the distinction in the particular thing here lies not in the mind's limitation, as in the case of the purely logical distinction, but rather in the comparison of the thing with other things. This comparison reveals to us various metaphysical grades of being, that is, a kind of hierarchical order in the status or degree of fullness of reality. Thus a stone would be in a lower grade of reality than a plant, a plant in a lower grade than an animal which in turn is lower than man. But the fact is that the higher grades frequently subsume in themselves all the reality of the lower grades. Man has all the grades of reality of things below him and something more. Now when the mind recognizes the higher grade but sees also the various lower grades virtually contained in the higher, then it must be said that reality itself has more to do with any distinction introduced under these circumstances than would be the

[27] Unde oportet dicere quod in (anima) ipsa sit aliqua virtus derivata a superiori intellectu, per quam possit phantasmata illustrare. . . . . Et ideo Aristoteles comparavit intellectum agentem lumini, quod est aliquid receptum in aëre. *Summa. Theol.*, I, q. 79, art. 4.

case in the purely logical distinction. Nevertheless the mind is able, by constantly checking its intellectual experience through reference to that of the senses, to recognize this distinction now made as not ultimately real but mental. This is what is called the virtual distinction. When the mind sees that the objects, i. e., the various grades of reality, necessarily and implicitly involve one another, though they do not do so explicitly, the virtual distinction introduced is said to be imperfect. When the mental analysis carried on by the intellect finds such involvement neither implicitly nor explicitly necessary, then the virtual distinction is perfect. It closely approaches the real and here particularly it is that both internal and external sense experience is needed. Examples of this perfect virtual distinction would be those we introduce between the organic, sentient and intellectual life of man, or between animality and rationality in the human being.

Obviously the mind will encounter great, though as we think, not insuperable, difficulty in judging whether certain distinctions are imperfect or perfect virtual, or real distinctions; as witness the long controverises waged in the philosophy of all periods upon the respective parts played by mind and objective reality in the final interpretation of experience. The difficulty is increased when we come to consider the nature of the distinctions between the mind and its activities or capacities for activity, where we are outside the realm of that sense data which are of such service in helping us to determine controversies of this kind. This is a point worth noting in connection with the diverging views held by the Scholastics on this question. It constitutes for them one of the main psychological problems. Added difficulty arises from the fact that the simplest and most ordinary test of real distinction, i. e. separation or possibility of separation of one thing from another, will not be available here. But it must be clearly understood that this ordinary test is not the only, nor the absolutely essential one. Things considered as distinct and as not fulfilling this ordinary test are said nevertheless to be examples of *absolute or major real distinctions.* In a word two things may be really distinct and yet not mutually capable of existence apart from each other. The possibility of separate existence may be on the part of one of them only, e. g., a body and its motions. In this case the distinction is called a minor

or modal real distinction to indicate its character as being between a thing and its mode of existence. It is interesting to observe in passing that Aristotle does not seem to have regarded separation as the only indispensable test of real distinction, as witness the real distinction he made between a corporeal substance and its extension.[28]

Going a step farther, not even possibility of separation on the part of one of the objects really distinguished is necessary. Some things by their very nature might be capable of existing only in union and yet be really distinct, e. g., the material and the vital principles in a plant. We quote from Coffey [29] whom we have followed in part on this question: "This distinction is held to be a real distinction because substantial change in corporeal things, i. e., corruption and generation of individual corporeal substances, is held to be real. If it is real there is a real separation of essential factors when the individual corporeal substance perishes. Each principle may not continue to exist actually as such in isolation from the other. . . . But they can actually exist as essential principles of other actual individuals."

It is evident from this brief analysis that great difficulty will be encountered in its attempt to decide upon the nature of the various distinctions which occupy it. Hence we are not surprised to find conflicting opinions amongst the representative Scholastics on this question. These can hardly be said, however, to indicate any real lack of confidence in the mind's native ability. Rather the general impression of mediaeval Scholastic psychology is that of a robust and even overly optimistic faith in the mind's power. It is nothing if not confident.

St. Thomas raises the question of the nature of the distinction between the soul and its faculties several times in his works.[30] In each instance he maintains the more radical position that the essence of the soul is really distinct from its faculties (though of course really inseparable from them), since, as we have seen above,

[28] 3a *Meta.* 1029 a 7-20.

[29] *Ontology*, p. 153.

[30] *Summa Theol.*, I Ques. 54, art. I; I Ques. 77, art. 1; *Ques. Disp. De Anima*, art. 12; *Ibid. de Spirit. Creat.*, art. 11; Quod. X, 5. Cf. also *in lib. Sent.* I, dis. III, p. IV, art. 2.

he defined faculty as a proximate principle of operation of the soul. In taking up this bold position he follows the advanced teaching of his preceptor, Albertus Magnus,[31] who may be considered as an early exponent of the view. The disciple however, as elsewhere, is more definite and cogent in his reasoning; and hence we may well allow the latter to speak for both. Let us examine some of the arguments which St. Thomas offers for his position, while noting in advance that this is a controversial point not absolutely settled by his statement of the case. These arguments lead us into a phase of profound metaphysical speculation and are undoubtedly but the logical development of St. Thomas' generally very realistic attitude in the science of the nature of being.

The discussion of the nature of the distinction taken up in the places mentioned contains repetition to a certain extent, and yet each argument adds something to the general position. For instance, in the *Summa Theologica,* where the soul receives perhaps its most extended treatment (I qq. 75-119), the powers in general are discussed in Question 76 and then specifically in a number of subsequent questions. The first article of Question 76 raises the point as to whether the essence of the soul is identical with its powers. St. Thomas denies the identity, insisting on a real distinction, and for practically the same reason that he denies the identity generally of operative powers of any being with the being itself, whether the being is pure spirit or is embodied.[32] It is briefly sum-

[31] *In Lib. Sent.*, Dist. III, p. II, art. 34. Cf. also *Summa Theol.*, p. I, tr. 3, q. 15 m. 2a 2 subp. 1.

[32] Nec in angelo, nec in aliqua creatura, virtus vel potentia operativa est idem quod sua essentia. Quod sic patet. Cum enim potentia dicatur ad actum, oportet quod secundum diversitatem actuum sit diversitas potentiarum; (This must be understood of adequate acts of a power, e. g. to understand in respect of intellect; many inadequate acts can be of the same power e. g. intention, election, consent etc. of the will.) propter quod dicitur quod proprius actus respondet propriae potentiae. In omni autem creato essentia differt ab eius esse, et comparatur ad ipsum sicut potentia ad actum. . . . Actus autem ad quem comparatur potentia operativa, est operatio. In angelo autem non est idem intelligere et esse; nec aliqua alia operatio, aut in ipso, aut in quocumque alio creato, est idem quod eius esse. Unde essentia angeli non est eius potentia intellectiva; nec alicuius creati essentia est eius operativa potentia. *Summa Theol.*, I, q. 54, art 3. Practically the same argument is repeated in several of the other references mentioned above.

marized in various ways by Mercier;[33] The communication of an act is not possible except in a subject capable of receiving it. Acts different in themselves should then have in the subject of those acts diverse receptive sources, or potentialities. Consequently, the admitted diversity of two such actualities as to exist and to act presupposes necessarily a corresponding diversity of potentialities in their respective subject, i. e. substance and faculties. A further emphasis upon real distinction is seen when one remembers that potency and act divide all being[34] and that act and power of the act are referred to the same genus whether it be substance or accident. Certainly the action of a thing is really distinct from the act whereby it exists, i. e., existence. Indeed the first is undoubtedly of accidents and the second of substance. Therefore, the potentialites which they actualize, in the first case the faculties and in the second case essence, are really distinct by all the distinction that really exists between a substance and its intrinsic accidents or properties. The only case where operation is of the genus substance, or where existence and action are the same, is in God—who is Pure Act. The soul, however, like all finite things, is part potentiality and part actuality.

This last consideration leads, however, to a difficulty in connection with what has been said above. If the soul as a finite reality is capable of perfection, i. e., accidentally changed, modified, and determined by accident such as acquired habits and dispositions, is it not also perfected by the accidents of operative powers or faculties themselves which are inherent native dispositions? Then the faculties are a real actualization of it, though simultaneous with it from the beginning. Looked at in this way they are actualization of the essential potentiality. Thus they would be assigned to the same genus, substance, and so would not be really distinct from the essence. The finite substance would be immediately active without

[33] Mercier, *Ontologie*, p. 324 et seq.

[34] Cum potentia et actus dividant ens et quodlibet genus entis, oportet quod ad idem genus referatur potentia et actus; et ideo si actus non est in genere substantiae, potentia, quae dicitur ad illum actum non potest esse in genere substantiae. Operatio autem animae non est in genere substantiae, sed in solo Deo, cuius operatio est eius substantia. *Summa Theol.*, I, q. 76, art. I in corp.

the intermediate action of the faculties. If we still insist, as we undoubtedly should, that the operative powers are accidents, then from this viewpoint we have an actuality that is not of the same supreme genus as its potentiality. St. Thomas maintains a position close to this view of the soul when he says that the soul may be thought of as a certain potential whole,[35] in which view its diverse powers are diverse parts. Hence the soul is predicated of parts or conversely. This, he maintains, is an abuse of predication almost as inaccurate as when we predicate an integral whole of its parts or vice versa, except that a potential whole according as it is a substance belongs to any part. Further, it is to be remembered that while the operative power might be thought of as an actualization of the substance of the soul it is an innate capacity and therefore does not have the same relation to that substance as accidents such as habits and dispositions (which are acquired capacities) have in turn to operative powers. The one is a relation of substance to accident, the other of accident to accident.

As Coffey points out,[36] however, unless we are to think of the substance of soul as some mere unchangeable core with all action referred to the faculties then we must admit that the actualizations which the faculties give to the substance are in some true sense real actualizations and we then admit a *potentia* and *actus* which are not in the same category. Otherwise all the action of the active principle appears to be immediately upon the proximate passive principles and the substance itself becomes an immutable substrate quite detached. Nothing is farther from the truth. It is really, even though accidentally, changed or modified at each moment. True as this may be, however real though inadequate and incomplete the change may be, personal identity and continuity are just as important. This necessitates that the change, to be real, be accomplished through, or grounded in, some really distinct proximate principles —as St. Thomas put it: faculty is " principium quo." [37]

[35] Quodl. X, art. 5: Alio modo possumus loqui de anima secundum quod totum potentiale; et sic diversae potentiae sunt diversae partes eius: et ita anima praedicatur de potentiis, vel e converso, abusiva praedicatione, sicut totum integrale de suis partibus, vel e converso.

[36] *Ontology*, p. 302.

[37] (Potentia) non quidem principium quod est subjectum aut patiens; sed id quo agens agit aut patiens patitur. Quaes. Disp. *De Anima*, q. XII.

Following out the above line of thought it is seen that the faculties, as proximate principles mainly potential in nature and so indetermined of necessity, need something to determine them to actuality.[38] Such determinants are the various actions of the soul more or less fixed in their mode by acquired habits and dispositions. These habits and dispositions then are faculties of a faculty—media between faculty and act.[39] They immediately actualize the faculties. They narrow the faculty's mode or direction of action just as repeated actions in turn narrow the mode of action of the acquired faculties—the habits and dispositions. The real distinction between the faculties on the one hand and the habits or dispositions which directly determine them on the other and between each of these and the actions which therefore indirectly determine the faculties is obvious once the real distinction between the faculties and substance is admitted. All the arguments that hold for the distinction between the soul and its acquired powers will hold for the distinction between the innate operative powers or faculties and the habits and also between the faculties and their actions. From this analysis the order then appears to be as follows: Each action tends to actualize or determine or perfect a habit or disposition. The habit or disposition tends to determine or perfect the inherent faculty. Through the perfection or actualizations of the inherent faculty the soul itself is brought from its state of imperfection or potentiality to a state of gradually increasing perfection.

A second and more special argument for real distinction between the soul and its faculties is built upon the assumption of a further

[38] Nam habitus ad potentiam animae comparatur ut actus ad potentiam; cum potentia sit indeterminata quantum est de se per habitum determinatur ad hoc vel illud. Ibid., *De Virtutibus in Communi*, art. 3.

[39] Respondeo dicendum quod habitus quodammodo est medium inter potentiam puram et purum actum. Jam autem dictum est (art. praec.), quod nihil cognoscitur nisi secundum quod est actu. Sic ergo in quantum habitus deficit ab actu perfecto, deficit ab hoc, ut non sit per seipsum cognoscibilis; sed necesse est quod per actum suum cognoscatur. . . . *Summa Theol.*, I, q. 87, art. 2. Cf. also, Maxime habitus inveniuntur in anima, in quantum anima non determinatur ad unam operationem, sed se habet ad multas . . . et quia anima est principium operationum per suas potentias, ideo secundum hoc habitus sunt in anima secundum suas potentias. *Summa Theol.*, Ia-IIae, q. 50, art. 2.

real distinction between various faculties themselves, e. g., that to understand is not the same as to perceive, to image, to remember, or to will, etc. As we consider this problem of analysizing and classifying the mental powers more a psychological than a metaphysical problem, we propose to deal with it and justify the distinctions between the faculties themselves in the next chapter under the title of the empirical aspect of the faculties.

Analysis of the soul's capacities and their classifications arises in every system of psychology whether one admits the capacities to be real psychic entities or mere suppositions for the convenience of discussion. Assuming the real distinction between the faculties themselves, it is argued that it is impossible for a thing to be identical with several things really distinct from one another. But the faculties of the soul are really distinct from one another. Therefore it is impossible for a soul to be identical with its faculties. It may be briefly suggested here that the line of argument for showing the faculties to be distinct is twofold: First, we have the fact that some powers are of certain parts of the body which they use as organ, e. g., sensitive and nutritive powers. Others indeed are not of any part of the body but transcend it, e. g., intellect and volition are of the soul only, using no bodily organ. Hence the faculties of these two classes of activities, belonging to two really distinct principles, must themselves be distinct. Secondly, the fact that there is a certain order among the faculties, e. g., the will is subordinate to, and to a degree dependent on, previous cognition. If these were the same a thing would depend on, and be subordinate to, itself; it would be at the same time active cause and receiver of motion, which is impossible.[40]

A third argument, implicit in the second, arises from supposing that the soul acts directly by one act as those who deny the distinction would maintain. Suppose that what we thought to be different powers were merely conceptual aspects of one active nature and thus that the distinction were what we have explained above as logical or, at the most, virtual. Then in this one act there would be what we consider to be seeing, thinking, willing, and the like, which we

[40] Quaes. Disp., *De Spirit. Creat.*, art. 11 in c., of which the above is a summary.

generally consider as separate acts. We may say that we have no evidence that such an act has ever been elicited by ordinary finite human beings. The rapidity with which our mental acts succeed one another in our mental life might lead us at times to think of many of them as one, but closer careful analysis shows their distinct characters. We act rather in the most particular modes; and even for mere variety of the same mode repeated act is necessary. One might reply that such a single act as that described is never exercised or never realized. But then the existence of such an act would be the merest arbitrary assumption for which not only is there no evidence but not even indication of evidence in the way of a partial manifestation. In other words, an act is supposed to exist which has never been known to have been elicited. Yet action is the key to existence.[41] Hence the facts compel us to posit several proximate sources or faculties for the several very different kinds of mental activity which we see constantly displayed. This multiplicity of faculties, however, does not deny the fact that a consciousness of the identity of the present with the past self compels us also to posit one ultimate source of energy from which they all draw their respective energies, viz.,—the substance of the soul itself.

St. Thomas, following Aristotle, finds the reason for this multiplicity of actions and of powers in the very finite and limited nature of the perfections of man. The higher the grade of perfection, the fewer the acts.[42] When St. Augustine says, in *De Trinitate,* X, chap. 12, " Memory, intelligence and will are one life, one mind, one essence," he is to be understood as speaking imperfectly, predicating the potential parts of the potential whole.[43]

(b) *Distinction According to Alexander of Hales and St. Bonaventure.*

St. Thomas had his opponents in this question of distinction in his own day just as his followers have their opponents today. His view of the faculties as absolute intrinsic accidents, really distinct

[41] Cf. Mercier, *Ontologie,* p. 325.

[42] Aristotle, *De Coelo,* II, 66; also St. Thomas, *Summa Theol.,* Q. 77, art. 2; *De Potentiis Animae,* Cap. I, etc.

[43] *Summa Theol.,* Q. 77, art. 1 ad 1; Quaes. Disp. *De Anima,* art. XII, ad 4 and ques. Disp. *De Spirit. Creat.,* art XI, ad 8, etc.

from the soul itself and yet entering into such a composition with it that the whole produced the real unity all schools insisted upon, was indeed very bold. His greatest contemporary, St. Bonaventure, in his Commentaries on the First and Second Books of Sentences, adopts, with hesitation, a much more conservative position. The distinction between the soul and its faculties appears to be in the class of virtual distinction such as we have described earlier in this chapter, i. e., a conceptual distinction which has a deeper foundation in reality than the purely logical, which as we saw was made merely for the mind's convenience and because of its limited power of apprehension. The virtual distinction has a deeper foundation in reality because it is made in beings of higher grades of reality, which while recognized as unitary and having a proper reality of their own, are seen to have in them, at the same time, all the reality of beings of lower grades. Thus reality suggests the making of distinction in things really unitary. In this way St. Bonaventure seeks to avoid the Thomistic extreme of real dictinction and the older Augustinian view of identity of soul with its faculties. In this conservative position he is practically following the position of his *pater et magister,* Alexander of Hales, whose lectures he attended at Paris in 1242. Both teacher and pupil question the Augustinian tradition. Since the discussion of St. Bonaventure is more definite we shall follow his treatment as representing both writers essentially.

St. Bonaventure speaks particularly with reference to the higher spiritual faculties. In his discussion of the question in the twenty-fourth distinction of the Second Book of Sentences he notes three prevailing views: (a) those who hold that the faculties are merely relations, i. e.—the soul related to act—in which essence and power are identical—the view using the supposed authority of St. Augustine's *De Anima et Spiritu*[44] and defended at great length by Henry of Ghent in St. Bonaventure's time,[45] (b) those who maintain that the faculties are more than mere modes or relations; that they are inhering properties of the genus accident, called qualities, i. e., the Thomistic view; (c) a third mediate view which holds that they are not the same as the soul in being its essential and intrinsic

[44] Cap. 4 and 13 seq., of doubtful Augustinian authorship; *De Trinitate*, Bk. X, chap. 11, N. 18, gives the same view.

[45] Quodlibeta 3, q. 14 (cf. also Quod. 14, q. 7).

principles and yet not so diverse that they should be in a different genus (viz. accident) from the substantial soul. They are in the same genus, substance *per reductionem*. They are consubstantial with the soul.[46] He rejects the first view, reinterpreting St. Augustine, by comparing various contexts in *De Trinitate* to mean not complete identity but a certain intrinsic adherence; otherwise it would follow that the principles of internal and external sense were the same.[47] He sets aside also the Thomistic view to accept the third view as a kind of modification of the more radical second. Admitting the powers to be different amongst themselves as proved by his predecessor Alexander of Hales,[48] he holds that they are nevertheless in the same genus as the substance, not of course *per se* but by "reduction". They are not distinct as accidental entities from the soul. In other words, the Thomistic conclusion, that real distinction among the powers themselves necessarily means real distinction from the essence of which they are the powers, does not

[46] Quidam enim dicere voluerunt, quod potentia animae non est aliud quam ipsa relatio; vel ipsa anima relata ad actum . . . quod omnes animae potentiae sint unum per essentiam. . . . Alii vere dicent voluerunt, quod potentiae animae non tantum modum sive relationem, sed etiam dicunt proprietates inhaerentes ipsi animae quae sunt de genere accidentium utpote secunda specie qualitatis videlicet naturalis potentiae et impotentiae. Et isti dicunt, quod potentiae in anima differunt essentialiter, sicut diversae formae accidentales existunt in eodem subjecto. . . . Tertii sunt, qui dicunt, quod potentiae animae, nec *adeo sunt idem* ipsi animae sicut sunt eius principia intrinseca et essentialia, nec *adeo diversae* ut cedant in *aliud genus* sicut accidentia sed in *genere substantiae sunt per reductionem* . . . et ideo quasi medium tenentes inter utramque opinionem dicunt, quasdam animae potentiae sic differre ad invicem, ut nullo modo dici possint una potentia; non tamen concedunt, eas simpliciter diversificari secundum essentiam, ita ut dicantur diversae essentiae, sed differre essentialiter in *genere potentiae*, ita ut dicantur diversa instrumenta eiusdem substantiae. In Lib. II, dis. 24, p. 1, art. 2, q. 1.

[47] . . . Ex ipso verbo beati Augustini colligitur, quod cum dicit memoriam, intelligentiam, et voluntatem unam esse essentiam, non dicit per omnimodam identitatem, sed per quandam intrinsecam adherentiam . . . quoniam si aliter intelligeretur, valde improbabiliter videretur fuisse locutus. Sequeretur enim ex verbis suis quod unum et idem esset ratio interior et exterior sensus; quod adeo contra rationem est, ut etiam refugiat ipse auditus, . . . *ibid.* ad. 1.

[48] Alex. Hales, *Summa Theol.*, II, q. 21 m., 1 ad 2 et q. 65, m. 1.

follow. He explains what he means by saying that things are 'reduced' to the same category as distinguished from being in that category *per se*. Those things are in a genus *per se* which participate in the *complete* essence of the genus, e. g., species and individual. Things are in the same category *per reductionem* when they are not the complete essence. This will happen in various ways: (a) reduction to the same category as *principles:* either *essentially,* as in the case of the material and formal principles which go to make up a corporeal substance and which are not distinct from it but are distinct in themselves; or *integrally* as part of a substance; (b) reduction as *complement:* either *per modum actus,* as when *actus primus* is considered as substance, e. g., to live and to be; or *per modum aptitudinis* as when the completive *differentia* is reduced to the same genus as species; (c) reduction as *ways or means:* either a *way* to things, e. g., movement and change as generation reduced to substance; or *ways* from things, e. g., as when powers or faculties are similarly reduced to substance.[49]

This novel and mediating solution makes the relation between

[49] Sunt enim quaedam, quae sunt in genere *per se*; aliqua *per reductionem.* Illa per se sunt in genere, quae participant essentiam completam illius generis, ut species et individua, illa vero per reductionem, quae non dicunt completam essentiam, et haec sub quinque membris continentur. Quaedam reducuntur sicut *principia*, quaedam sicut *complementa*, quaedam sicut *viae*, quaedam sicut *similitudines*, quaedam sicut *privationes*. . . . Sicut principia dupliciter: aut *essentiantia*, aut *integrantia*; ut principia, *essentiantia*, sic sunt materia et forma in genere substantiae; ut principia *integrantia*, sic partes substantiae sunt in genere substantiae per reductionem. . . . Si autem reducuntur ut complementa, hoc potest esse dupliciter: aut enim est complementum per modus *actus*, et sic est actus primus, qui reducitur ad idem genus cum substantia, cuius est actus, ut vivere et esse substantiae ad genus substantiae; aut per modum *aptitudinis* et sic differentiae completivae ad idem genus reducuntur cum specie. . . . Si autem reducuntur sicut *viae* hoc potest esse dupliciter: aut sicut *viae ad res*, et sic motus et mutationes ut generatio reducuntur ad substantiam, aut sicut *viae a rebus*, et sic habet reduci potentiae ad genus substantiae. Prima enim agendi potentia quae egressum dicitur habere ab ipsa substantia ad idem genus reducitur, quae non adeo elongatur ab ipsa substantia, ut dicat aliam essentiam completam. . . . *Ibid.*, II, dist. 24, p. 1, art. 2, q. 1, ad 8. The fourth mode, similitudines, and the fifth mode, privationes, do not interest us here. The foregoing sufficiently exemplifies the notion.

the soul and its faculties analogous to that between a complete corporeal substance and its constitutive principles, matter and form. These latter ultimate substantial principles are really though inadequately distinct from one another but they are not really distinct from the substance. So the faculties are really distinct among themselves but not really distinct from the soul. The first however is a reduction to the same category *essentialiter,* the second 'via a rebus.' Hence, although analogous, the reductions are not entirely the same since the relations in each case are between different grades of being.

The discussion in the Third Distinction of the Commentaries on the First Book of Sentences throws further light upon the viewpoint outlined in the Second Book. Natural powers are there spoken of in a twofold manner.[50] In one way they exist in a subject as a habit disposing the subject to easy or difficult action, e. g., power of fighting. In this manner they are accidents of the second species of quality. In another way they may be said to flow from the subject itself either accidentally or immediately. If they flow accidentally, e. g., the power of the flame to make warm,—they are referred to the accident of quality. If they flow immediately,—e. g., the power of producing to the extent of the induction of an ultimate form—they are not in another genus than substance but are reduced to that same genus. Now we apply these various modes to the term " powers of the soul " and according as we use the term we must classify powers as substance or as accident and as distinct from the soul or not distinct. For example, should we speak of cleverness or sloth we should be using the term as accidents of the second species of quality. It is a use according to the first mode. If one mentioned the power of syllogizing which would be the ordering of some substance to act,—in this case the accidental property the soul possesses in it is the habit of syllogizing—this would be an accident in the first species of quality. In using the term with reference to memory, will, and intellect, which flow im-

[50] *Ibid.*, Lib. I, dis. 3, p. 2, q. 3. Conclusio . . . Alio modo dicitur naturalis potentia, quae naturaliter egreditur a substantia et immediate, sicut potentia generandi quantum ad inductionem ultimae formae; et haec quidem non est alterius generis quam substantia, sed reducitur ad genus substantiae tamquam substantialis differentia.

mediately from the substance that can remember, know, and love itself, power is "consubstantial" with the soul.[51] Yet, because there is a flowing from the soul, powers are not in every way the same *per essentiam.* Neither are they entirely different as if they added a new entity. An example is given in the relation between a thing and its likeness. The thing is not entirely identical with the likeness nor entirely different from it. The likeness is reduced to the same genus as that of which it is the likeness. It flows out of the thing but does not pass into another genus. It is like the brilliance of the light. From this it is conceded that the soul is not its faculties per *essentiam* but per *reductionem*.[52] Quotations from St. Augustine, St. Bernard, Aristotle and arguments from reason pointing to a more complete identity as well as those demanding a more complete and real distinction are answered in the light of his own solution.

It is the opinion of the Quarrachi editors of the works of St. Bonaventure that a kind of real distinction is still to be admitted without placing the faculties in any different genus. If they were not consubstantial but were merely accidents, the soul would not know and love anything outside itself for the reason that an accident cannot exceed its subject by its own power. As an accident does not exist except by virtue of a substance, neither does it operate

[51] Contingit iterum nominare potentias animae, ut *immediate* egrediuntur a substantia, ut per haec tria: memoriam, intelligentiam, et voluntatem. Et hoc patet, quae omni accidente circumscripto, intellectio quod anima sit substantia spiritualis, hoc ipso quod est sibi praesens et sibi conjuncta, habet potentiam ad memorandum, et intelligendum et diligendum se. Unde istae potentiae sunt animae consubstantiales et sunt in eodem genere per reductionem, in quo est anima. Attamen, quoniam egrediuntur ab anima—potentia enim se habet per modum egredientis—non sunt omnino idem per essentiam, nec tamen adeo differunt ut sint alterius generis, sed sunt in eodem genere per reductionem. Lib. I, Dis. 3, art. 1, q. 3.

[52] Et potest satis manifestum exemplum dari in re et in *similitudine eius.* Nam res non habet tantam identitatem cum sua similitudine, ut sint unum numero, nec tantum diversitatem, ut differant genere. . . . Et ita similitudo rei in eodem genere est per reductionem cum eo, cuius est similitudo. Quia enim egreditur, ideo differunt sed non transit in aliud genus. Et loquor de similitudine secundum rationem similitudinis, non intentionis, id est prout a subjecto exit et not recedit ut splendor a luce. Concedendae ergo sunt rationes probantes quod anima non est suae potentiae per essentiam. *Ibid.*, Lib. I, Dis. 3, art. 1, q. 3.

except through the power of its supporting substance.[53] But consubstantiality does not, according to these interpreters, absolutely exclude distinction. In so far as such faculties as knowledge and love are acts, the term consubstantiality is not properly applied but only in so far as they are "co-created habits."[54]

St. Bonaventure's editors would bring more closely together the diverging views, as expressed by their author and Alexander of Hales on one hand and St. Thomas on the other, by maintaining that the former take the concept of accident as logical accident, whereas the latter takes it in the metaphysical sense. This distinction is Aristotelian. Logically the mind considers the attributes of a thing from the wide viewpoint of the genus or species to which the thing belongs. Thus approached, the attributes are essential when by reason of their indication of the essence they are made the basis of the generic or specific class; or they are accidental when they are not so connected with the essence as to be made the basis of such classes. Between these two general divisions, however, there is a class of attributes which, while not absolutely of the essence, are so close to it that they seem to rise out of it as a necessary effect out of a cause. These are called properties, e. g., the power of speech arising from the rational nature of man. These cannot be called accidents because accidents were not considered to have any

[53] Haec igitur ultima sententia admittit quidem inter animae substantiam et potentias eius connaturales et consubstantiales distinctionem quandam *realem*, quae tamen non trahat potentias ad diversum genus praedicamenti, nempe accidentis (tamen *habitus acquisiti*, quibus alii extra animam cognoscuntur et amantur, certe cadunt sub genere accidentium). Immo si potentiae non essent animae consubstantiales, numquam anima sciret et amaret aliquid ad extra, quia, ut dicit S. Augustinus, nullum accidens excedit subiectum, scil. sua virtute. Nam accidens, sicut non *est* nisi virtute substantiae, sic nec *operari* potest nisi virtute substantiae, et nisi aliquid substantiale ei substernatur.—Unde nec habitus acquisiti agere possunt nisi virtute habituum vel potentiarum substantialium.—Scholion to I, Dist. 3, p. 2, art. 1, q. 3.

[54] Denique *consubstantialitas* non intelligitur absoluta cum exclusione cuiusvis distinctionis, sed in sensu in praecedenti quaestione explicato.—Insuper notandum quod consubstantialitas, quam notitia et amor habent cum mente, non accipitur proprie, quatenus sunt actus, (quia actus secundi et accidentia non possunt esse realiter idem cum substantia animae), sed quatenus sunt habitus concreati. Scholion Lib. I, Dist. 3, p. 2, art. 2, q. 2.

such close relation with the essence. From the logical viewpoint, then, there is a class between essence and accident. Objectively or metaphysically, however, all reality is considered as inhering in another or not inhering in another and accordingly all reality is either accident or substance, *ens entis* or *ens*. From this viewpoint there is no middle position between substance and accident. Properties then belong to the latter class and hence the faculties, viewed metaphysically, as St. Thomas generally views them, being properties, will be put in the class of accidents. He does discuss them briefly from the logical point of view and accordingly states that they are thus to be classed neither as essence nor as accident but as something between the two, viz, natural properties.[55] Alexander of Hales and St. Bonaventure, taking the logical viewpoint, maintain that the faculties do not belong to the class accident. A quotation from the Summa of the former indicating this attitude is adduced. Here Alexander distinguishes between the faculties which inhere in the substance of the soul and other accidents which do not so adhere.[56] Nevertheless, whenever St. Bonaventure considers the

[55] Ad quintum dicendum, quod si accidens accipiatur secundum quod dividitur contra substantiam, sic nihil potest esse medium inter substantiam et accidens; quia dividuntur secundum affirmationem et negationem, scilicet secundum esse in subjecto et non esse in subjecto. Et hoc modo, cum potentia animae non sit eius essentia, oportet quod sit accidens; et est in secunda specie qualitatis. Si vero accipiatur accidens secundum quod ponitur unum quinque universalium (genus, differentiae, species, proprium, accidens) sic aliquid est medium inter substantiam et accidens; quia ad substantiam pertinet quidquid est essentiale rei; non autem quidquid est extra essentiam, potest dici accidens, sed solum id quod non causatur ex principiis eseentialibus speciei. Proprium enim non est de essentia rei, sed ex principiis essentialibus speciei causatur; unde medium est inter essentiam et accidens, (sicut dictum est in solut. ad 1). Et hoc modo potentiae animae possunt dici mediae inter substantiam et accidens, quasi proprietates animae naturales. *Summa Theol.*, I, q. 77, art. 1 ad 5. It is in this second mode that St. Augustine says, according to St. Thomas, that knowledge and love are not in the soul as accidents.

[56] Dicendum, quod anima est quodam modo sua potentia, ut fiat distinctio inter potentias substantiales sive vires ex una parte accidentia ex alia, quantum ad hoc, quod potentiae et vires substantialiter inhaerent et unum sunt cum anima quantum ad substantiam, non dico quantum ad essentiam; potentiis enim substantialiter subsistit anima. Accidentia vero, ut prudentia, fortitudo et huiusmodi, non adhaerent substantialiter, quia haec

faculties objectively, he refers them *per reductionem* to the category of substance.

It is difficult to see how the reconciliation of these two opposed schools in the sphere of logical classification has really brought them closer together when the problem becomes one of objective reality. Again it should be insisted that if the faculty theory is put forward as a serious hypothesis with real explaining power it is from the standpoint of the reality of the faculties that it must be discussed. Both Alexander of Hales and St. Bonaventure were apparently strongly influenced by the Augustinian currents in Mediaeval philosophy. St Bonaventure, particularly, was a staunch upholder of tradition. He accepts, for instance, the old doctrine of the *rationes seminales* not only because he believes it to be true but also, as he says, " because the authority of Augustine confirms it." [57] The best he can contribute to the discussion of our problem is a most unsatisfactory compromise which is wavering, hesitant, and generally unacceptable. To us it seems to make St. Augustine's position rather unintelligible without improving in any way the clear cut position of St. Thomas. It is difficult to see how his " reduction " of the faculties to the class of soul substance, even though analogous to that of the ' reduction ' of the constitutive principles of matter and form to the class of complete corporeal substance, is consistent with the real distinction admitted between the faculties themselves. He admits with St. Thomas that the very limitation of the nature of created substances is the reason why they require a multitude of acts and powers, one supplying for the defects of the other.[58] If the acts are different from the soul itself, if there is such a difference

accidentaliter adsunt. Unde potentiae et vires substantiales dicuntur idem quod anima ratione indivisionis et adhaerentiae substantialis, accidentia vero non, quia substantialiter non adhaerent. *Summa Theol.*, p. II, q. 21, M. 1.

[57] In Lib. Sen. I, Dist. 7, p. 2, art. 2, q. 1, Conclusio.

[58] Quoniam potentia creaturae arctata est, non potuit creatura habere posse perfectum, nisi esset in potentiarum multitudo, ex quarum collectione sive adunatione, una supplente defectum alterius, resultaret unum posse completum, sicut manifeste animadverti potest in organis humani corporis, quorum unumquodque indiget a virtute alterius adjuvari. In Lib. II, dis. 24, p. 1, art. 2, q. 1 ad 8.

in the intensity and duration of the same type of act in different minds, the logical conclusion would seem to be that these have different proximate sources really distinct from the single ultimate source, the essence of the soul. St. Bonaventure really does not refute the main arguments presented by St. Thomas for his position. Perhaps the radical departure of the latter from the Augustinian view caused the always conservative Franciscan to seek some mediate position, but he has not done so with any great measure of success.

(C) *Duns Scotus.*

We cannot close this chapter without a brief summary of the explanation of one other illustrious Scholastic of the latter part of the thirteenth century who, by reason of a kind of distinction peculiar to his own system and school, presented what appears to be a different answer to this question. This writer was the Franciscan *Doctor Subtilis,* Duns Scotus. The distinction he made between the soul and its faculties was supposed to be something less than the real distinction of St. Thomas and something more than the virtual distinction of St. Bonaventure. We have said that the virtual distinction is a distinction introduced by the mind when it considers the various richer, superior, grades of reality. The individuals of these grades, while really one and individual, are seen to subsume within themselves by their single superior form all those lower grades of reality known by the mind through its consideration of other lower forms. Thus the one superior rational form, the soul, has the lower grades of the sentient and vegetative, virtually distinct but really one with it. The mind introduced these distinctions in the soul because it found elsewhere in reality some forms no higher than the vegetative and others no higher than the sentient. St. Thomas insisted that each substantial form is not only the principle of intrinsic determination of its matter but also the one and only complete substantial determination of that matter. No one thing could ever have more than one substantial form. Scotus however held for a plurality of ever progressing forms, really distinct and actually independent of the mind's analysis, which, by successively informing the matter and in turn serving as potency or matter for further substantial forms, move toward the

complete individual form with its final perfection. Between these numerous forms or grades of reality in the individual, there exists the "*distinctio formalis, actualis ex natura rei*" because these forms are thus actually, and apart from our mind's analysis, distinct in the thing, though of course they are absolutely incapable of separation. Considered in this way this distinction is not so real as the real distinction nor yet so mental as the virtual or the logical distinction.

This is the kind of distinction that Scotus makes between the soul and its faculties after a lengthy discussion and rejection of the other views.[59] By it he hopes to reconcile all the conflicting views. With him it does not follow of necessity that plurality in effect demands really distinct plurality in cause. Plurality of effect can proceed from unlimited unity.[60] The soul is formally distinct from the faculties and the faculties are formally distinct among themselves.[61] They are as it were its passions, having a relation to the soul similar to that which the unity, truth and goodness of being have to the being itself.

This formal distinction is the peculiar contribution of Duns Scotus to mediaeval philosophy and theology. It is applied very extensively throughout his system and, as has been observed, is the

[59] Lib. II, Sent. Dist. 16, Questio Unica, which with Commentaries cover over fifty pages of very subtle metaphysical discussion.

[60] *Ibid.* Nam non est necesse, quod pluralitas in effectu, realis, arguat pluralitatem in causa, pluralitas enim ab uno illimitato procedere potest.

[61] (Potentiae) Quae sunt unum realiter, manent tamen distincta formaliter sive quae sunt idem identitate reali, distincta tamen formaliter. . . . Et secundum istam viam possunt salvari omnes auctoritates illae quae dicunt huiusmodi potentiae egrediuntur ab essentia animae, ut quaedam virtutes, item quod sunt mediae inter formas substantiales et accidentales, quia sunt quasi passiones animae, et passio egreditur a subjecto, vel ebullit; sunt tamen idem essentiae animae, ut dictum est et possunt etiam dici partes, secundum quod nulla dicit totam perfectionem essentiae continentis, sed quasi partialem. Similiter isto modo facile est concipere quod una potentia non continet perfectionem ipsius animae, licet sit eadem res propter distinctionem formalem. Unde sic contenta non continent se mutuo quia sunt distincta formaliter et inter se a continente primo cui idem realiter, unde duo contenta inter se distinguuntur, et respectu tertii sunt idem realiter. *Ibid.*

concept which makes one consistent whole of it.[62] Applied to our problem, as indeed in all its other applications, it is hard to see how the formal distinction is really different from the virtual distinction. St. Thomas rejects it as not being a separate kind of distinction. Duns Scotus, however as Lycheti remarks in his commentaries on this question in the Vives edition, refuses to accept either the real or the virtual distinction on the ground that we do not need to make either one of them.[63] We have thought of the source of the virtual distinction as being extrinsic to the things in so far as it arises from the fact that the thing is considered from different viewpoints or by reason of various relations it has to things outside itself. With Scotus and his followers, however, the virtual distinction must be intrinsic in view of the fact that at certain times opposing attributes can be predicated of the same thing under these different aspects. Thus we can say of the soul that it acts *per modum libertatis* and at the same time in an opposite way, *per modum naturae*. Since the will aspect is the reason for the first mode of assertion and the intellectual aspect for the second, while will and intellect are not really distinct from the soul, yet there must be some *intrinsic* capacities in the soul for these opposing

[62] De Wulf, *History of Mediaeval Philosophy*, p. 377.

[63] Hoc non dicit Doctor ex intentione propria, scilicet quod ipsa anima intellectiva, et potentia in nullo modo distinguantur praeter opus intellectus, quia tunc apud ipsum multa inconvenientia sequerentur, quae possent deduci ex dist. primi, etc. et quod non sit opinio Doctoris patet infra. Dicit enim ipse, quod non est *necesse* quod distinguantur, nec re, nec ratione; accipit ergo distinctionem rei quae est inter rem et rem. Et quia Thomas et quodammodo communis opinio negat distinctionem formalem dicit quod non est necesse quod distinguantur realiter, et quod potest sustineri. . . . Dicit ergo Doctor quod potest sustineri, quod non sit ibi distinctio realis, et hoc verum est, sed tamen non negat distinctionem ex natura rei vel formalem, imo illa est simpliciter, ut patet infra in primo d. 8. quia agere per modum libertatis, et agere per modum naturae sunt simpliciter modi oppositi agendi distincti praeter quamcumque operationem intellectus. Cum ergo voluntas sit ratio agendi per modum libertatis, et intellectus per modum naturae; igitur inter illa est aliqua distinctio praeter opus intellectus, et similiter inter illa et animam, quia si nullo modo distinguerentur ab anima praeter opus intellectus nec etiam inter se. Potest ergo sustineri quod fit ibi distinctio rationis, quia illa omnino superflueret. Lib. II., Sent., D. 16, Com. 21.

activities of the same thing. These are the Scotistic formalities. Intellect and will then are ' formalities ' of the soul. As such they are positive thought-objects of the soul enabling us to assert opposing activities under these different aspects. However in order to avoid reducing them to virtually distinct things, which would then put the Scotists in the position of asserting contradictories of what was after all one thing, they maintained that the formalities were *actually in the thing* prior to the mind's analysis, as the foregoing commentary of Lycheti shows.

It seems to us that this Scotistic compromise really does not further the discussion. In recognizing a character so distinct between intellect and will as to permit such opposing statements to be made concerning the soul, it would seem necessary to make nothing less than real distinction between them. This being admitted, the Thomistic argument would be available, viz. that a thing cannot be really identical with a variety of things which are really distinct from one another. Hence, since will and intellect are so really distinct from one another, they are really distinct from the soul itself. But it must be remembered that the Scotists will not admit real distinctions between ' formalities ' while at the same time they insist that the distinction is apart from the mind's apprehension of the individual. Such a straddling position between the real and the virtual seems hard to conceive. It is for this reason that it has been considered a very questionable distinction by some writers and reduced to the class of virtual distinction by others. These latter consider that the above mentioned Scotistic grounds for claiming that the formally distinct formalities are nevertheless actual on the part of the thing is as entirely unnecessary as it is presumptuous of the mind's power to take in reality. It is quite a sufficient interpretation of the facts to explain the supposedly opposite assertions which can be made about the soul, according as one takes an intellectual or a volitional aspect of it, to say that the mind itself grasps the mentally distinct aspects merely as aspects and accordingly gives them no more reality. It is to be recalled that it is not on this basis that St. Thomas insisted upon the real distinction between the faculties themselves.

CHAPTER V.

Empirical Aspects of the Theory.

1. *Table of the Powers of the Soul.*
2. *The Foundations of the Division.*
3. *The Thomistic Classification of Mental Faculties.*
4. *The Affective States in the Thomistic Classification.*
5. *Summary of Thomistic Doctrine.*

As we have already observed the problem of classifying its data is always present at the outset of any science. In psychology the various functions and their resulting conscious states are the data to be classified. It is conceivable that the various attempts at classification may prescind, though as we believe, illogically, from any metaphysical implications concerning the reality of the functions and the states as different from physical changes. Psychologists who deny the existence of a substantial soul and of faculties as in any way distinct from such a soul nevertheless proceed to classify conscious states into various capacities or powers. Thus Titchener observes:

> The older psychology, from which we have received the terms 'association', 'memory', etc. divided the discussion of mind into three great chapters, which it entitled Intellect, Feeling, and Will, and looked upon each of these chapters as concerned with a mental faculty or power. Intellect was the power to understand; will the power to choose, act, etc. Modern psychology has kept the three terms but uses them merely for purposes of classification. . . . We no longer think of mind

as something apart from mental processes, and of intellect, feeling, and will as faculties with which this something is endowed. Mind is the sum total of mental processes and intellect, feeling, and will are subdivisions of mind, special groups of the processes contained in the sum.[1]

This is fairly typical of the attitude of a large number of modern psychologists yet the attempts at classification continue and the old terminology, often bereft of all intelligibility, remains. The attempts of St. Thomas at classification apart from all the more profound problems of the reality of the classes is what we shall here term the empirical aspects of the theory of faculties. It is the effort of St. Thomas in this regard which we shall here briefly analyze.

[1] *Outline of Psychology*, p. 307.

1. TABLE OF POWERS OF SOUL

As Principle of Life

(According to *Summa Theol.*, I, 78, Art. I and Ques. Disp. *De Anima*, Art. i, 3)

I *Grades or "Souls"* (Living Principles subsumed into one soul in man.)	II *Modes of Living*
Distinguished according to relation to corporeal nature as soul's instrument.	Distinguished according to degrees of living things.
Rational (Operations performed without bodily organ.	*Intellectual* (Vegetative, Sensitive, Locomotive and rational—*Man.*)
	Locomotive (Vegetative, sensitive, and with power of motion,—*Perfect animal.*)
Sensitive (Operations performed through bodily organ but not through corporeal qualities except to dispose the organ.)	*Sensitive* (Vegetative and sensitive, but without motion,—*Immovable animals.*)
Vegetative (Operations performed through bodily organ and through corporeal qualities. Above mere corporeal operations since operations are from intrinsic principles.)	*Vegetative (Plants)* (Without sensitiveness or motion.) (Appetitive does not constitute a degree or mode of living since it is in all modes above merely vegetative.)

1. TABLE OF POWERS OF SOUL

As Principle of Life

(According to *Summa Theol.*, I, 78, Art. I, and Ques. Disp. *De Anima*, Art. i, 3)

III *Genera of Powers*	III A *Species of Powers*
Distinguished according to their acts and relation to objects, "per acta et objecta".	Also distinguished by their acts and more special relations to the object.
Intellectual (Object—universal immaterial being.)	*Cognitive* (Abstracts and receives universal forms.) — *Intellectus agens*—abstracts forms. *Intellectus possibilis* — receives forms and retains.
Locomotive (Inclines towards extrinsic objects as term of operation and movement.)	No Species.
Appetitive (Inclines towards extrinsic objects as end.)	*Intellectual*—the will (inclines towards universal forms.) *Sensitive*—(inclines towards sense forms.) — *Concupiscible*—inclines towards suitable and away from harmful. *Irascible*—resists corruptive and contrary agencies.
Sensitive (Object is particular sensible being by way of taking likeness of object into soul, i. e., *apprehension*.)	*Exterior*—(divided by reason of diversity of exterior cause, i. e., object.) — *Sight*—exterior cause, color, effecting spiritual change only. *Hearing*—exterior cause, sound, or percussion of air effecting spiritual and natural change (by place). *Smelling*—exterior cause, odor, effects spiritual and natural change by alteration. *Taste*—exterior cause effects spiritual and natural change on part of organ. *Touch*—exterior cause effects spiritual and natural change. *Interior*—(divided by diversity of needs of perfect animal.) — *Imagination*—apprehends absent object. *Memory*—preserves images. *Vis aestimativa*—apprehends particular intention. *Common Sense*—apprehends common sensibles.
Vegetative (Object is particular body united to the soul alone.)	*Nutritive*—for preserving existence for body. *Augmentative*—for acquiring due quantity for body. *Generative*—for acquiring existence for body.

2. *Foundations of the Division.*

We shall first consider the principles or "fundamenta divisionis" upon which he makes his particular division or classification, and then follow with a brief sketch of the details in his schema, as our investigation concerns itself mainly with the validity of his general concept of faculty, rather than with the empirical application of it. The general plan is outlined in the *Summa Theologica,* Part I, Ques. 76, and in Ques. Disp. *De Anima,* Art. 13; *De Veritate,* esp. q. 23, Art. 10 and passing references in the *Summa Contra Gentiles* and the *Commentaries on the Sentences of Peter Lombard* and the *De Anima* of Aristotle.

The first division which St. Thomas makes in his treatment of the specific powers of the soul is what he calls the *grades* in the soul as living principle of the body. The soul acts as it were, at various levels. These grades are distinguished according to the relation which the soul has to the particular corporeal nature which is the soul's instrument.[2] On this basis we have the soul as *rational* performing its operations entirely without the body; the soul as *sensitive* performing its operation through body organs with the corporeal qualities of things used merely to dispose the organ properly; the soul as *vegetative* also performing its operations through body organs and by virtue of the actual taking in of the corporeal object. It is to be observed that even at this lowest level it is the soul that operates and even here surpasses the operations of mere bodies alone in that these latter move entirely from an extrinsic principle whereas the soul as vegetative acts from intrinsic principles. This triple division of grades or "souls" is peculiar to man. Other living things, which as living therefore have souls in a certain sense, have one or several of these grades but none save man has all three really united in the one soul.

[2] *Summa Theol.*, I, Q. 76, Art. 1. This plan of division is not mentioned elsewhere. An opusculum, *De Potentiis Animae* which had long been attributed to St. Thomas but which is now known definitely to be spurious, presents a considerably different division from that outlined in authentic works of St. Thomas. One of its interesting features is its localization of many mental functions, such as memory, imagination, instinct, in various parts of the brain. It appears to be a study that is much later than the time of St. Thomas.

Another division is made by what St. Thomas calls *modes of living*. Concerning this division he says very little other than to give very briefly the basis of the divisions and the classes themselves.[3] The modes of living in the soul are distinguished according to the degrees of living. It seems difficult to see how this differs very much from his division into grades. Here again we have the vegetative mode, the sensitive mode, and the intellectual mode with the higher mode again subsuming to itself the lower modes. But while in his division into grades or souls he does not distinguish between the movable and the immovable when he speaks of the soul from this standpoint of modes of living he considers this distinction to be necessary. Hence the sensitive mode is confined to the immovable animals such as for example shell fish. The movable or perfect animals which seek the necessities of life at a distance make a separate higher mode known as the locomotive. The soul having the highest or fourth mode of living, namely the intellectual, is that belonging to man. This gives us then four modes of living: vegetative, sensitive, locomotive, and intellectual.

Finally, we come to what are known as the *genera* of powers. Here following Aristotle five genera are noted. They are the same as the modes of living with the addition of the appetitive genus. The appetite is not given as a mode of living because there it is coextensive with the sensitive mode wherever that is found. Hence the five genera of powers are: vegetative, sensitive, appetitive, locomotive, and intellectual. It is for this division, which is the principal one, that St. Thomas lays down his basis of division in the previous question (77 Art. 3) and which he repeats elsewhere in his writings. The genera of powers find their distinction by "their acts and objects". This calls for explanation. Powers are ordained to act. Hence by the peculiar character of their activity we shall know what are the distinct classes and sub-classes, or genera and species, of powers. The activity of a thing reveals its nature: *Operari sequitur esse.* This, however, will not get us very far. A further assistance is found in the fact that the acts in turn are distinguished by the manner in which the various objects affect the soul. In some cases the object seems

[3] *Ibid.*

to be the cause or principle of the activity. This would indicate a relatively passive power. The act would be the act of a passive power. Thus the color of an object would be the principle or moving cause of the passive power of vision since it moves the sight. In other cases the object is the term or end of the action. This would indicate an active power. The act would be the act of an active power. Thus the object of the power of growth, called the augmentative power, is fullness of quantity.[4]

This principle of division, by which the object immediately determines the act, and, through the act, mediately determines the power, requires perhaps further elucidation. How does it come that the same object determines different powers? The object that is principle of activity whereby we apprehend a thing is also the term or end of an active power. Again certain diverse objects pertain to diverse powers and at the same time to the same power. Sound and color pertain to different powers and yet to a common power, the associative or common sense. Stated more explicitly, therefore, it is not the material distinction of objects which diversifies powers but the formal distinction of objects, i. e., diversity of aspects.[5] For example what is apprehended or what is desired is the same reality but in the one case it is considered as something sensible or intelligible while in the other it is considered as suitable or good.[6] Hence it is the peculiar nature of the activity

[4] *Summa Theol.*, I, Q. 77, Art. 3. Respondeo dicendum quod potentia, secundum illud quod est potentia, ordinatur ad actum. Unde oportet rationem potentiae accipi ex actu ad quem ordinatur; et per consequens oportet quod ratio potentiae diversificatur, ut diversificatur ratio actus. Ratio autem actus diversificatur secundum diversam rationem objecti; omnis enim actio vel est potentiae activae, vel passivae. Objectum autem comparatur ad actum potentiae passivae sicut principium et causa movens; color enim, inquantum movet visum, est principium visionis. Ad actum autem potentiae activae comparatur objectum ut terminus et finis; sicut augmentativae virtutis objectum est quantum perfectum, quod est finis augmenti.

[5] Ad secundum dicendum quod potentiae non diversificantur secundum materialem distinctionem objectorum, sed secundum formalem distinctionem quae attenditur secundum rationem objecti. Et ideo diversitas secundum rationem boni et veri sufficit ad diversitatem intellectus et voluntatis. *Summa Theol.*, I, Q. 59, Art. 2, ad 2.

[6] Ad secundum dicendum, quod id quod apprehenditur, et appetitur, est

itself that is more fundamental in diversifying the powers. The objects towards which the activity is directed as mediate principles of distinction only help to indicate the distinct nature of the activity. "In like manner", says St. Thomas (in comparing the distinction between the faculties as similar to that by which we declare the genus animal to be of rational or irrational species according to the difference in essential nature), "not any variety of objects diversifies the powers of the soul but a difference in that to which the power is *by its very nature* directed. Thus the senses of their very nature regard the passive quality which of itself is divided into color, sound, and the like, and therefore there is one sensitive power with regard to color, namely sight, and another with regard to sound, namely hearing. But to a passive quality, e. g., a color,—it is accidental whether it be a musician, a grammarian, great or small, a man or a stone. Hence by such differences the powers of the soul are not diversified."[7] What is accidental will not be the basis of essential distinction.

A thing therefore will be the object of the soul according as it has some particular relation to the soul. Where the same thing has different relations it will be counted as different objects and thus indicate different powers. In a general way things have a two-fold relation, according to St. Thomas: 1. the thing as in the soul in the manner of the soul,—i. e. spiritually and not in the manner of the thing itself—the object as principle of the activity; 2. the soul as related to the thing in the thing's mode of existence, i. e., the inclination of the soul towards the thing as its end of action. Any one thing might have both of these relations. This gives rise to the wide division of powers into two general classes. The former of these relations, by which the soul apprehends the object, is known as the cognitive power; the latter, consequent upon cognition, by which it reaches out toward or turns away from the object, is the appetitive powers.[8]

idem subjecto, sed differt ratione. Apprehenditur enim ut est ens sensibile, vel intelligibile; appetitur vero ut est conveniens, aut bonum. Diversitas autem rationum in objectis requiritur ad diversitatem potentiarum, non autem materialis diversitas. *Ibid.*, I, Q. 80, Art. 1, ad 2.

[7] *Summa Theol.*, Q. 77, Art. 3. Sed tamen considerandum est quod ea quae sunt per accidens, non diversificant speciem.

[8] Et quantum ad hoc sunt duo genera potentiarum, scilicet *sensitivum*

These general cognitive and appetitive relations of things to the soul are each immediately subdivided into two relations on a basis similar to that which gives the wider division, viz., by "act and object". In the taking in of the object, which is characteristic of cognition, it is noted that the thing taken in may be embraced either as a particular sensible thing or as being universally considered—"the less common object," as St. Thomas puts it,—or the "most common object," viz., universal being. In a more specific manner then the object presents itself to the soul in two different ways. Hence, as far as the soul is concerned this indicates two sets of cognitive powers: the sense cognitive or simply sensitive powers, as St. Thomas here calls them, whose object is the less common aspect of things; and the intellectual cognitive or simply intellectual powers, whose object is universal being.[9] It is to be noted that although both are of a cognitive or apprehensive character they are considered so different as to constitute two distinct genera of powers as listed above. The distinction is further emphasized by the fact that the sensitive use bodily organs whereas the intellectual do not.[10] In the appetitive relation is the

respectu objecti minus communis, quod est corpus sensibile; et *intellectivum* respectu objecti communissimi, quod est ens universale. *Ibid.*, I, q. 78, art. 1.

[9] Dicitur autem aliquid esse objectum animae, secundum quod habet aliquam habitudinem ad animam. Ubi ergo invenimus diversas rationes habitudinis ad animam, ibi invenimus per se differentiam in objecto animae, demonstrantem diversum genus potentiarum animae. Res autem ad animam invenitur duplicem habere habitudinem: unam secundum quod ipsa res est in anima per modum animae, et non per modum sui; aliam secundum quod anima comparatur ad rem in suo esse existentem. Et sic objectum animae est aliquid dupliciter. Uno modo, in quantum natum est esse in anima, non secundum esse proprium sed secundum modum animae, id est spiritualiter: et haec est ratio cognoscibilis in quantum est cognoscibile. Alio modo est aliquid objectum animae, secundum quod ad ipsum anima inclinatur, et ordinatur secundum modum ipsius rei in se ipsa existentis: et haec est ratio appetibilis in quantum est appetibile. Unde cognoscitivum et appetitivum constituunt diversa genera potentiarum. Ques. Disp., *De Veritate*, Q. 22, Art. 10.

[10] Est ergo quaedam operatio animae in tantum excedit naturam corpoream, quod neque etiam exercetur per organum corporale; et talis est operatio animae rationalis. Est autem alia operatio animae infra istam quae quidem fit per organum corporale non tamen corpoream qualitatem. Et talis est opeartio sensibilis. *Summa Theol.*, I, Q. 78, art. 1.

same basis for division when we incline towards or turn from what we apprehend. Hence we have inclination toward or away from sensible forms apprehended by sense cognitive powers, and toward or away from universal intellectual forms apprehended by the intellectual powers. This gives us sense appetitive and intellectual appetitive powers.[11] Strange to say, however, this division does not result in two genera of powers but rather two species of the one genus, viz. appetitive powers. Or we may put the higher appetitive power as a species of intellectual as St. Thomas does in another discussion.[12] Why this should be a genus is difficult to see unless we may hazard the guess that St. Thomas simply preferred to follow the accepted Aristotelian list of genera of powers even though his much keener appreciation of the difference between the sensible and the intellectual relations of the soul with reality should have caused him to bring in a sixth genera by dividing the appetitive as he had divided the cognitive.

The above analysis is undoubtedly the ground upon which St. Thomas is generally thought of as asserting a bipartite view of faculties above the level of vegetative powers of the soul. To a certain extent of course this is true as the analysis shows. But here enters a certain difficulty in the place occupied by the class of powers known as *locomotive*. In the general outline of his division which we have here been discussing, it is noticed that opposite the general appetitive class are placed what he classes as locomotive. Therefore this latter is related to the appetitive inclination or tendency towards something extrinsic to the soul. This inclination may be towards the thing either as "end which is first in the intention" or as "term of operation and movement". This first relation to the object gives rise to the appetitive, the latter to the locomotive.[13] It is interesting to note that St. Thomas

[11] Respondeo dicendum quod necesse est dicere appetitum intellectivum esse aliam potentiam a sensitivo. . . . Quia igitur est alterius generis apprehensum per intellectum et apprehensum per sensum, consequens est quod appetitus intellectivus sit alia potentia a sensitivo. *Ibid.*, I, Quaes. 80, art. 2.

[12] Gradus autem intellectualium potentiarum similiter distinguunter in cognoscitivas et appetitivas. Quaes. Disp. *De Anima*, art. 13.

[13] Alia vero secundum quod ipsa anima inclinatur et tendit in rem exteriorem. Et secundum hanc etiam comparationem sunt duo genera poten-

feels the need of a definite locomotive class of power. It is arrived at just as are the other powers, by the same principle, that of peculiar relation between soul and object. In this genus, however, there is no diversification of species unless it be according to diversity of motions. In man at least this is not the case. "Motion is common to both sensitive and intellectual powers; for the same body is moved by both with the same movement." [14] Other than this little more is said by way of analysis whereas after exposing this general plan of division each of the other genera is discussed with more or less detail. The locomotive power then runs parallel to both sense and intellect and as the accompaniment of the appetitive powers. "For every animal is moved for the purpose of realizing its desires and intentions." [15]

Finally, there is left the vegetative class of powers. It is important to observe that these bodily or natural functions are to be ascribed ultimately to the spiritual soul of man. The soul is in every part of the body as its informing actualizing principle. In man this vital principle is of a higher grade than in the lower orders because the human vital principle is spiritual. But this does not hinder it from subsuming to itself functions of a vital principle of a lower kind. One notes no deep cleavage between mind and body. There is a true sense in which the lowest physiological functions in man have a definite mental aspect. It can therefore be seen how, due to such intimate association of body and mind, even such functions as digestion, growth, and reproduction may be profoundly affected by the mind and vice versa. In this vegetative class of powers of the soul the object is the particular body to which the soul is united. Hence this particular relation calls for a particular class of powers on the principle outlined above. That this power is of the soul and not of the body only is clear from the fact that its acts are from an intrinsic principle whereas the movements of bodies as such are caused by

tiarum animae: unum quidem scilicet *appetitivum*, secundum quod anima comparatur ad rem extrinsecam ut ad finem, qui est primum in intentione, aliud autem *motivum secundum locum*, prout anima comparatur ad rem exteriorem sicut ad terminum operationis et motus. *Ibid.*, I, q. 78, art. 1.

[14] Quaes. Disp. *De Anima*, art. 13.

[15] *Summa Theol.*, I, q. 78, art. 1.

an extrinsic principle.[16] This class of vegetative powers obviously requires bodily organs for its exercise.

We may now proceed to a brief statement of the subdivisions of these genera of powers which occur in all of them save the locomotive power, as we have already noted. The principle upon which the subdivisions are made will be generally similar to that by which we arrived at the five general classes, viz., "by act and object".

3. *The Thomistic Classification*

Vegetative Powers. This genus of powers has three subdivisions by reason of the fact that the soul has three distinct relations with its own body as expressive of the body's needs: (a) the acquiring of existence, which is accomplished through the *generative power;* (b) the acquiring of the proper quantity due the body, through an *augmentative power;* (c) the preservation of the body in its existence and its proper quantity, through a *nutritive power* of the soul. Of these three the generative is the most perfect, approaching the lowest of the next higher class because it has its effect not in one and the same body but in another, since a thing cannot generate itself. The nutritive and augmentative have their effects only in the body in which the soul exists. This approach in perfection of the highest of faculties in a lower order to the lowest in a higher order is noted throughout the whole range of faculties.[17]

Sensitive Powers. This class of powers, as we have noted, is really more exactly termed sense cognitive or sense apprehensive powers. We may immediately subdivide the class into external and internal sense cognitive powers. The principle of this sub-

[16] Infima autem operationum animae est quae fit per organum corporeum et virtute corporeae qualitatis. Supergreditur tamen operationem naturae corporeae; quia motiones corporum sunt ab exteriori principio; huiusmodi autem operationes sunt a principio intrinseco: hoc enim commune est omnibus operationibus animae. Omne autem animatum aliquo modo movet seipsum; et talis est operatio animae vegetabilis. . . . (Further on in the same article discussing the object of this power.) Alicuius enim potentiae animae objectum est solum corpus animae unitum; et hoc genus potentiarum animae dicitur vegetativum. *Ibid.*, I, q. 78, art. 1.

[17] *Ibid.*, I, q. 78, art. 4.

division is stated as follows: "As nature does not fail in necessary things there must needs be as many actions of the sensitive soul as may suffice for the life of the perfect animal. If any of these actions cannot be reduced to the same one principle, they must be assigned to diverse powers since a power of the soul is nothing else than the proximate principle of the soul's operation. Now we must observe that for the life of a perfect animal, the animal should apprehend a thing not only at the actual time of sensation, but also when it is absent. Otherwise since animal motion and action follow apprehension an animal would not be moved to seek something absent: the contrary of which we may observe specially in perfect animals, which are moved by progression, for they are moved towards something apprehended and absent. Therefore an animal through the sensitive soul must not only receive the species of sensible things, when it is actually affected by them, but it must also retain and preserve them. Now to receive and retain are, in corporeal things, reduced to diverse principles." [18] The group of faculties which receive the species of sensible things when such faculties are actually affected by them are known as the external sensitive faculties; and those which apprehend a thing in its absence as well as conserve the sensible species and its intentions are the internal sensitive faculties. By the "intentions of the sensible object" he meant their useful or harmful character which is certainly not evident from their external appearance. This causes a distinct relation between the object and the soul which cannot be accounted for except by asserting a distinct internal faculty. The pleasurable or painful character of the sensible objects, however, does not give rise to any power other than the apprehending of the sensible forms which the various senses perceive.[19] Feelings, in a word, are not separate faculties. This is important in view of the modern attitude in this regard. We shall treat of the point at the end of this chapter.

A. External Sense Apprehension.—Here we generally distin-

[18] *Ibid.*, I, q. 78, art. IV.

[19] Rursus considerandum est quod si animal moveretur solum propter delectabile et contristabile secundum sensum, non esset necessarium ponere in animali nisi apprehensionem formarum quas percipit sensus, in quibus delectatur, aut horret. *Ibid.*, I, q. 78, art. 4.

guish five powers of external sense apprehension. It is interesting to observe that St. Thomas considers that the bodily organs which these powers use arise as a result of the powers and not vice versa. So likewise nature is represented as providing mediums for these various external powers.[20] The knowledge of the essential nature even of the sensible qualities perceived by the senses is, however, intellectual, as we shall see.

When we come to the question of the actual number of these external senses we note that since these powers are passive the change in them is due to some quality in a thing extrinsic to the power. The diversity of sensible powers will then be determined by the diversity of changes effected by the external causes. Hence according to this diversity of change there are five such external senses. It is to be noted that this change or alteration is two fold: (a) *physical,* when the form of change or similarity to the form is received physically, e. g., heat in that which is heated; (b) *spiritual,* when the change is received in a spiritual manner, e. g., the resemblance of color in the netina of the eye which, however, does not become thereby colored. Such a spiritual change is essential to a sense and without it the sense is not properly so termed even though it is always accompanied by physical change.[21] This is an important observation which is often overlooked in modern psychology. Otherwise, as St. Thomas here observes, if the physical change alone were sufficient all natural bodies would feel when they undergo change, which, of course, is not true.

Now some of the senses have spiritual changes only, as is the case in *sight.* Physical change, according to St. Thomas, is absent both in the organ and in the object of vision. Hence it is placed as the first or most universal of the senses in dignity. Its organ is the eye and its object the color of bodies. Next in dignity is *hearing.* It requires a physical change on the part of its object which is sound. Sound is caused by percussion and commotion

[20] Natura instituit diversitatem in organis, ut congruerent diversitati potentiarum, *Summa Theol.,* I, q. 78, art. 3.

[21] *Summa Theol.,* q. 78, art. 3, where this and the following analysis is presented. Also Quaes. Disp. *De Anima,* art. 13, and *De Anima,* lib. III, Lect. 7.

of the air. Its organ is the ear. Below hearing is *smell.* It also requires a physical change on the part of its object which is the odor exhaled by objects when they are in some manner affected by heat. The organ of smell is located in the nostrils. In neither hearing nor smelling do the respective objects of these senses affect the sense organs in any physical way unless indirectly. Finally come *taste* and *touch* which are the most material of all the senses. Here the respective organs are changed physically. In touching a heated object the hand becomes hot. In taste the tongue is made moist when object is moist. While in a way these two senses might be thought of as the same we may note their distinctness of organ with a parallel distinction of power. Taste, which perceives sweet and bitter, is confined to the tongue only which itself becomes sweet or bitter when touched with an object having one or other of these qualities. In fact, it may be considered a kind of touch. Finally touch, the most elementary of the senses, is diffused over the whole body and is thus easily distinguished from taste in other parts than the tongue.[22]

It is seen from the above that the object of each of the external senses is some accident of the class quality. Only qualities can affect the senses by way of the change or alteration that is necessary to activate these powers. Hence there cannot be as many external senses as there are accidents. As to increasing the number of external senses St. Thomas offers opposition. Size, shape, number, motion and rest, for instance, can all be reduced in some way to the accident quantity and cannot therefore be the direct object of the external senses except in so far as they are the immediate support of quality accidents.[23] Touch and taste are very similar but, as we saw, they are specifically distinct. The diffusion of touch over the whole the body does not give rise to many senses. Hence the number of exterior senses is quite definitely limited to five. Concerning temperature, pressure, the equilibristic sense St. Thomas has nothing to say.

[22] *Ibid.*, I, q. 78, art. III ad I, also Sent. II, dist. 2, ques. 2, art. 2 ad 5; Ques. Disp. *De Anima*, art. 13 et *De Anima*, Lib. III, lect. 7.

[23] Objectum sensus communis est sensibile, quod comprehendit sub se visibile et audibile. Unde sensus communis cum sit una potentia extendit se ad omnia objecta quinque sensum. *Summa Theol.*, I, q. 1, art. 3 ad 2.

B. The Internal Senses.—As before stated these internal senses are needed to enable the animal to apprehend the absent object when it is not actually stimulating a particular external sense, to receive and conserve the sensible species, and to grasp their useful and harmful "intentions" toward the individual. None of these purposes are accomplished by the external senses. There is some question as to the exact number of these internal senses. St. Thomas, on the basis here given, considers them to be four in number: *sensus communis* or associative sense, imagination, *vis aestimativa,* (called *vis cogitativa* in man), and memory. We shall say a few words regarding the character of each of them.

1. *Sensus Communis.*—This interior sense unites the various impressions of external senses. It is the common center and receptor of all of them. The external senses are each limited to their own proper sphere, e. g., vision to color, hearing to sound. By the power of vision the soul can discern red from green or black. By taste it can discern an object as sweet. But neither of these for instance can discern green from sweet. This need is secured by the sensus communis. It extends itself to all the objects of the proper sensibles and for this reason is a sensitive power.[24]

2. *Imagination* (*Phantasy*).—This power has for its purpose the retention and preservation of the sensible species received by the proper and common sensible. It is called the storehouse of these forms. The fact that receiving and retaining are diverse acts makes it necessary to posit separate faculties. Not only does the imagination retain the sensible forms but it apprehends them when the sensible object is no longer present, as is obviously very necessary. The close relation of the imagination to the intellectual apprehension will be noted later. As is the case with all the other senses it does not apprehend the essence of things but only their external accidents. Since it is dependent on the exterior senses when any of these are lacking there is a corresponding lack of images. A person born blind for instance has no image of color. There are no innate images.[25]

[24] Sensus non apprehendit essentiam rerum sed exteriora accidentia tantum: similiter neque imaginatio, sed apprehendit similitudines corporum. *Ibid.*, I, q. 55, art. 1 ad 2.

[25] Deficiente aliquo sensu; deficit scientia eorum quae apprehenduntur

Vis Aestimativa[26].—The third internal sense is the vis aestimativa (estimating power). The necessity of this power over and above the apprehension and retention of forms lies in the fact that the animal must be able to distinguish between the useful or advantageous and the harmful, as well as between the pleasant and the unpleasant. In a word it must know the "intention" of objects which external senses cannot of course perceive. Through this power, for instance, the sheep flees the wolf. Such an act is performed not on account of any unpleasantness of color or figure, but on account of the wolf's inimical nature. So the bird collects the straw, not because the straw delights the sense but because it is useful for building. Hence it seems that there is some principle of perception of "intention" in the animal other than imagination which is limited to change in sensible form. This peculiar power is not exercised through the eye but through some capacity which is to the brute what intellect is to man. Just as one knows through the intellect what he does not know through the senses, yet the intellect is dependent upon sense, so the vis aestimativa in a lesser way know more than sense reveals. Some animals perceive intentions of this kind, both those that are good and those that are harmful, solely by natural instinct; but in man it is more than this because there is in addition a certain comparison. Hence this power is called *aestimativa* in certain animals but *cogitativa* in man. In the latter case it might be called particular reason because there is a comparison of individual intentions similar to the comparison of universal intentions in universal reasoning. Hence the vis cogitativa, St. Thomas observes, has been assigned by medical men as its organ, the middle part of the brain where they also place true reason. Avicenna put a power between fantasy and vis aestimativa whose capacity is that of compounding and dividing imagined forms, e. g., as when the images gold and mountain are given we form an image

secundum illum sensum: sicut caecus natus nullam potest habere notitiam de coloribus; quod non esset si intellectui animae essent naturaliter inditae omnium intelligibilium rationes. Et ideo dicendum est quod anima non cognoscit corporalia per species naturaliter inditas. *Summa Theol.*, I, q. 84, art. 3.

[26] *Summa Theol.*, I, q. 78, art. 4.

of a gold mountain which we have never seen. Although we find this ability only in man we should not therefore posit a new power when this can really be explained by the power of imagination. It is worthy of note here that the principle of localization of interior as well as exterior function is, in a broad general way, accepted. There is, however, little of detail upon this point in the authentic works of St. Thomas.

Memory[27].—The fourth of the internal powers is *memory.* This is the conserving power of those intentions which the vis aestimativa (or cogitativa) apprehends, just as the imagination is the conserving power for the sensible forms apprehended by the various proper and the common sensibles. The animal for instance remembers something as harmful or useful.

A distinction is to be noted between memory in man and in the brute, and this chiefly because of the corresponding difference in the character of the vis cogitativa in man from the vis aestimativa in the brute. In man this instinctive power is affected by its relation with his higher power of reason. In fact, the power in man is often called particular reason since it makes a kind of judgment between particulars similar to the universal judgment of reason. The animal, which lacks this relation with a higher power, has a purely natural instinctive action. For this reason there is a parallel difference in the memory of man compared with the memory of the animal. In the latter there is a mere sudden recollection of the past whereas in human memory there is the additional bringing together of certain preliminary individual intentions and the application of these as an aid to recollection, a kind of syllogistic activity of a rudimentary kind. This addition element is known as *reminiscence.*[28] This latter is not to be considered as a faculty distinct from memory. The greater perfection is simply due to the higher nature in man, i. e., to the proximity of memory to reason. Here, then, as in the

[27] *Ibid.*, I, q. 78, art. 4 (also Ques. Disp., art. 13).

[28] Ex parte autem memorativae non solum habet *memoriam* sicut cetera animalia, in subita recordatione praeteritorum sed etiam *reminiscentiam* quasi syllogistice inquirendo praeteritorum memoriam secundum individuales intentiones. *Ibid.*, I, q. 78, art. 4.

case of the vis aestimativa, is an overflowing so to speak of the higher into the lower power.[29]

The Appetitive Powers.—Next in the Thomistic list of genera come the appetitive powers. In general it is this class of powers which incline the soul towards or away from the various forms which it receives mainly through cognition. It is to be noted here that, in keeping with his acceptance of the validity of the Aristotelian notion of final cause, St. Thomas held that all things, even the inanimate, have a natural inclination or tendency towards their ends. In a sense then we may speak of the natural appetites even of these lower grades of reality. But in beings which have knowledge there is an inclination surpassing this naturai tendency and it is of this superior inclination that we more precisely speak when we use the term *appetitive powers.* The human soul as the principle of life possesses this natural appetite even on the vegetative level, e. g., the beating of the heart which is quite outside the influence of the cognitive functions.[30]

This genus of appetitive powers in the more restricted and proper sense is divided into sensitive and intellectual *appetites* in view of the two-fold relation between object and appetite. The appetitive power always follows some apprehended form and, since the soul has distinct powers whereby it apprehends uni-

[29] Ad quintum dicendum quod illam eminentiam habet cogitativa et memorativa in homine, non per id quod est proprium sensitivae partis, sed per aliquam affinitatem et propinquitatem ad rationem universalem, secundum quamdam refluentiam. *Ibid.* ad 5.

[30] Respondeo dicendum quod necesse est ponere quamdam potentiam animae appetitivam. Ad cuius evidentiam considerandum est quod quamlibet formam sequitur aliqua inclinatio; sicut ignis ex sua forma inclinatur ad superiorem locum, et ad hoc quod generat sibi simile. . . . Hanc igitur formam naturalem sequitur naturalis inclinatio, quae appetitus naturalis vocatur. In habentibus autem cognitionem sic determinatur unumquodque ad proprium esse naturale per formam naturalem, quod tamen est receptivum specierum aliarum rerum; sicut sensus recipit species omnium sensibilium, et intellectus recipit species omnium intelligibilium . . . ita oportet quod in eis sit inclinatio supra modum inclinationis naturalis, quae dicitur appetitus naturalis. Et haec superior inclinatio pertinet ad vim animae appetivam, per quam animal appetere potest ea quae apprehendit, non solum ea ad quae inclinatur ex forma naturali. *Summa Theol.*, I, q. 80, art. 1.

versal and particular sensible being so it has distinct powers for inclining towards such universal and particular forms considered as good; viz., sensitive and intellectual appetites.[31]

Sensitive Appetites[32].—Corresponding to the sense cognitive powers which use bodily organs and have sensible being for their objects are the sense appetitive powers which also function through the body and which are often included under the term *sensuality*. They are natural inclinations towards or away from the objects presented to the soul by sense apprehension. Sensitive appetites are more properly considered movement inasmuch as body movement is the indication of the operation of these powers whereas sensitive apprehensive powers are more likened to rest.

This subdivision of sensitive appetitive powers is immediately again divided by St. Thomas into two specific classes, namely, irascible sense appetites and concupiscible sense appetites. The basis of the distinction lies in the fact that in our sense inclinations we have need, not only to acquire what is useful or avoid what is harmful, but also to be able to resist those forces which obstruct such acquisition of the suitable or produce the harmful,—in a word to resist the strength of the unsuitable. The former are known as concupiscible appetites and the latter, irascible. The example of this difference which St. Thomas gives is that of the fire. It has an inclination not only to rise from an unsuitable low position to a higher one, but also to resist those forces that hinder such action. That these two cannot be reduced to one principle is seen from their frequent opposition to each other. The opposition is particularly noted when these sense appetites are more intense in their character. In this case St. Thomas refers to them as passions. Passions, then, are in no proper sense separate faculties from those of sense appetites. It is in their character as passions, however, that these faculties have received much attention, especially in the field of morals. We shall treat feelings,

[31] Quia igitur est alterius generis apprehensum per intellectum, et apprehensum per sensum, consequens est quod appetitus intellectivus sit alia potentia a sensitivo. *Ibid.*, I, 80, art. 2; *De Veritate*, ques. 15, art. 5, and ques. 22, art. 4; *De Anima*, lib. I, lect. 10, and III, lect. 24, com. 2.

[32] *Summa Theol.*, I, ques. 81, art. 1 and 2; also Ques. Disp. *De Veritate*, ques. XXVI—*De Passionibus Animae*, esp. arts. 3, 4, and 5.

emotions, and passions separately at the close of this chapter, because under the title of affective states modern psychology considers these as separate mental powers so far as it admits any reality to any of these distinctions of powers.

Since by their nature the irascible appetites are exercised for the removing of obstacles to the exercise of the concupiscible, all the irascible passions or emotions arise out of and after the concupiscible passions. So, too, the irascible appetite in defense of the concupiscible acts beyond what is pleasing to the senses (and which may excite the concupiscible) in order that it may secure the useful, for instance, or that which is self-defensive. In so acting the irascible appetite may actually oppose the concupiscible just as in the sensitive powers the aestimative power, in considering intentions, may oppose the external sense faculties which apprehend only the external appearances of the object. These considerations are offered by way of emphasizing the distinction between these two species of sense appetites.

Intellectual Appetitive Power. The intellectual appetite is generally called the *will.* As we already noted, it is distinguished from sense appetitive powers in that it is an inclination toward or away from what is apprehended by the intellect, whereas they are inclinations towards the sense forms apprehended by the external and internal sense faculties.[33] Hence the intellectual appetite inclining towards being generally or universally will give the latter the character of universal *goodness* as it is then called. Thus ordered, it is impossible that there be any division in this power. There is but one will faculty. The more important question which arises here concerns rather the character of this faculty, —as to whether it is free or not. This is answered by understanding what we mean when we speak of free will. By this we mean simply an act of choice, that is, taking one thing while refusing another. Analyzing choice, we observe that there is here a concurrence of counsel, which is of the cognitive power. By this we judge one thing to be preferred before another. Finally there is acceptance of the judgment of counsel which is of the appetitive power. This latter, however, is the chief element in the act and

[33] *Summa Theol.*, I, quaes. 80, art. 2; *De Veritate*, quaes. XV, art. 3 corp. and quaes. XXII, art. 4.

therefore we may say that free will is mainly an act of the intellectual appetite, not really distinct from it. To will and to choose are of the same power.[34] As reason in contingent matters is able to present opposite courses for will to choose, it follows that man's will is a free will in some of its acts at least. But will as such is not free in all of its acts. As regards the ultimate end of its inclination it is determined. It must of a natural necessity adhere to the last end, happiness. However, because certain things which have a necessary connection with happiness and by means of which we adhere to the one true happiness, God, are not seen in our present state as being so connected with our ultimate end, we are not compelled to adhere to God.[35] But these and many other interesting questions concerning this faculty are rather outside of our field of discussion.

Intellectual Powers.—Finally we come to the highest genus of powers—the intellectual, or more exactly, the intellectual cognitive powers, since we have placed the intellectual appetitive powers under the genus appetitive, where St. Thomas seems to indicate it should be placed. Intellectual apprehension, more than any other power, seems to be identified with the essence of the soul itself. But a thing and the power of a thing are obviously distinct, at least where the thing is not essentially active. This is the character of every thing of which we have direct experience. Therefore, the intellect is a power of the soul and not the soul itself. Only in popular language are they so identified.[36] In God alone can act and essence be identified.

As to the general nature of this power we may say that it is a

[34] *Summa Theol.*, I, quaes. 83, art. 2; Sent. II, dist. 24, quaes. 1, art. 1 and 2; *De Veritate*, quaes. 24, art. 4.

[35] *Summa Theol.*, I, quaes. 82, art. 1: Quinimo necesse est quod sicut intellectus ex necessitate inhaeret primis principiis, ita voluntas ex necessitate inhaeret ultimo fini qui est beatitudo; and *Ibid.*, art. 2: Sunt autem quaedam habentia necessariam connexionem ad beatitudinem quibus scilicet homo Deo inhaeret in quo solo vera beatitudo consistit. Sed tamen antequam per certitudinem divinae visionis necessitas huius modi connexionem demonstretur, voluntas non ex necessitate Deo inhaeret nec his quae Dei sunt.

[36] *Summa Theol.*, I, q. 79, art. 1; also *De Veritate*, q. 17, art. 1.

passive power in the wide sense of general receptiveness, i. e., the receiving without being thereby deprived of any thing. In this wide sense passivity is applied to whatever passes from potentiality to act, even when it is in the perfected state. Now the natural object of intellect is all being,—the abstract universal forms of things,—but not all being at once, except in the case of the Divine Intellect, which in a single act comprehends all reality. The human intellect, with which we are here concerned, must be in potentiality to actual knowledge. Hence intellectual apprehension is said to be a passive power.[37] Indeed at the outset it is in an entirely potential state, a 'tabula rasa', as Aristotle calls it.

The question now arises as to whether this function, in all its phases, is entirely passive or in reality two functions, one passive and the other active. The answer of St. Thomas to this question is given by considering the opposing positions of Plato and Aristotle on the nature of ideas.[38] Plato supposed that the forms of things existed apart from matter and hence were actually intelligible because of this immateriality. These forms were his species or ideas. Now our intellect, as well as corporeal matter, is formed from a participation in these forms in order that we may have knowledge of the various genera and species of things. Then our intellect is entirely passive. But Aristotle maintained that these immaterial forms or ideas do not exist apart from the material things and hence that they are not actually intelligible. They are only potentially so. Since nothing is reduced from potentiality to act except by something which is itself in act it follows that there must be some part of the intellect to make these forms actually intelligible by abstracting them from their material conditions in addition to a part which receives the forms. This abstracting part is the active intellect.[39]

The duality of principles in intellectual apprehension is therefore necessary for the carrying out of its proper activity which is of a dual character. The intellect cannot understand unless it is informed by the species. It cannot be brought into act by the same

[37] *Ibid.*, I, q. 79, art. 2, and *De Veritate*, q. 16, art. 1 to 13.

[38] *Summa Theol.*, I, q. 79, art. 3; *Cont. Gent.*, lib. II, cap. 76 and 78; *De Anima*, art. 5.

[39] *Summa Theol.*, I, q. 79, art. 3.

power through which it receives these species. This duality of active and passive principles may be illustrated by an analogy. Fire in acting in water acts through its active influence, i. e., heat, to warm the water, but fire is acted upon through coldness to which it is in potentia and which in the water is an active principle. So the intellect, which in act is immaterial is active with respect to the immaterial forms of things, but in potentia in respect of their particular material conditions. This active abstraction of the immaterial form takes place of course, in a rational or mental way. It is proper to this function for in each of the sensitive powers there is a proper object. The eye, e. g., apprehends color but not taste joined to the colored thing. The intellect similarly apprehends genus and species which are never found in reality, except as individuals and yet does not apprehend these individuals. For example, it can apprehend animal without apprehending man, horse, and other species or it can apprehend man, but not some particular Socrates or Plato. So it is always the intellect which understands the abstract forms, the superior without the inferior.

The active intellect has directly for its object the phantasm or image which is a similitude of the thing and without adverting to which it cannot act. The passive intellect has for its object that which the thing is in essence, the *quiddity* of the thing, its substance. This represents the highest grade of being in the object and is thus quite appropriately the object of the highest faculty. It is the passive intellect alone which is the subject of science in its highest reaches. Mentally considered, this quiddity of things is secured through the *species intelligibilis.*

The passive intellect, according to the diversity of its perfections and operations, is called by different names, but is not really thus divided into numerous powers. If we recur to our principle of division, which makes diversity by reason of diversity of object toward which the power is directed, we see that the passive intellect, having being in general as its object, is really one power. In this connection several additional subdivisions of the powers of intellectual apprehension are considered and rejected.[40] Perhaps the most important of these questions is that of intellectual memory.

[40] *Summa Theol.*, I, q. 79, art. 6 ad 2.

We should be inclined to think of this as being a separate power from that of intellectual apprehension generally. St. Thomas insists that, while there is a sense in which we can speak of memory as a proper characteristic of intellectual apprehension, it is really not a separate intellectual function.[41] Memory in the sense of preserving the species of those things not now actually apprehended is certainly a characteristic of the passive intellect which by its nature is said to be each thing in so far as it receives them as intelligible species. In thus receiving, the passive intellect is said to be in act or operation. The objection of the Arabian philosopher, Avicenna, to the possibility of memory in this sense as a function of the intellect was based on the lack of a corporeal organ in which the species might be preserved and which was necessary for such retention. Instead of memory, there is a constant activity of the active intellect whenever the thing is to be understood anew. This gives a kind of aptitude on the part of the passive intellect for turning to the active intellect but this is not memory in any real sense. In reply, St. Thomas invokes the fundamental metaphysical axiom: What is received into something is received according to the conditions or manner of the recipient. Now, if forms of things are received into corporeal matter in a stable way because such corporeal matter is stable, then much more unchangeably and lastingly will they be received into the intellect which is immeasurably more stable than corporeal matter. Hence memory as the power of retaining species is certainly in the intellectual part.[42]

But memory may be considered as of the past. It is especially the sense of recognition of a present experience as being a repetition of a past experience and this seems to be considered essential to the full and proper meaning of the term. Here we must distinguish. The past may be referred to two things,—namely, to the object which is known, and to the act of knowledge. These two are found together in the sensitive part which apprehends something from the fact of its being affected by a present sensible. Wherefore, at the same time an animal remembers to have felt

[41] *Summa Theol.*, I, q. 79, art. 6; also *Contra Gentiles*, lib. II, cap. 74 fin; and *De Veritate*, q. X, art. 2.

[42] *Summa Theol.*, I, q. 79, art. 6.

before in the past and to have felt some past sensible thing. But as concerns the intellectual part, the past is accidental and is not in itself a part of the object of the intellect. For the intellect understands man as man; and to man, as man, it is accidental that he exist in the present, past, or future. But on the part of the act, the condition of the past, even as such, may be understood to be in the intellect as well as in the senses. Our soul's act of understanding is an individual act, existing in this or that time, inasmuch as a man is said to understand now, or yesterday, or tomorrow. And this is not incompatible with the intellectual nature; for such an act of understanding, though something individual, is yet an immaterial act as we have said above of the intellect (Ques. 79, Art. 1); and therefore, as the intellect understands itself, though it be itself an individual intellect, so also it understands its act of understanding, which is an individual act, in the past, present, or future. In this way, then, the notion of memory in so far as it regards past events is preserved in the intellect forasmuch as it understands that it previously understood; but not in the sense that it understands the past as something here and now.[43]

While memory, therefore, may be considered as characteristic of intellectual apprehension in a limited sense, there is certainly no doubt that it is not a separate faculty as, for instance, passive and active intellects are separate faculties of such apprehension.[44] Here we need only remind ourselves of our principle of division in the powers of the soul: powers are distinguished by the different natures of their objects. The nature of the power is revealed in its relation to its proper object. The intellect generally has for its object, as we have said, the common nature of being. It is then not differentiated by any difference in being. It is, however, differentiated as active and passive because, although they have the same object, there is evident need of some power actively to abstract this common nature which will be different from the intellectual apprehension of passively receiving that which was abstracted. But

[43] *Summa Theol.*, I, q. 79, art 6 ad 2.

[44] This view is taken in the following: Sent., I, dist. 5, q. IV, art. 1; *Cont. Gent.*, lib. II, cap. 74 fin; and *De Veritate*, q. 7, art. 3 ad 3 and q. XX, art. 3.

retaining will not be fundamentally different from receiving. Functionally, then, intellectual memory is a mere aspect of the passive intellect. It is not separated from passive intellect as active intellect is separated from passive. "This is similar to the case of the power of vision which regards its object under the common nature of color and hence is not differentiated by the differences of black and white." [45]

We may next consider reason in its relation to intellectual apprehension. It cannot be considered as a power distinct from intellectual apprehension. Reason must be considered merely as the mode or manner in which the human intellect understands or acquires knowledge. It is the intellectual function in action advancing from things better understood, as for example first principles, to more complex and less understood. This piece-meal or ratiocinative mode as it is called, is quite different from the mode of angelic intellects which act, as Dionysius says, without advancing from one thing to another, or without discussion. But this peculiarity in manner of procedure in human intellect, due to its dependence upon body, gives us no ground to suppose a power of reasoning separate from intellect. They are related as principle to term, as motion to quiescence, or generation to being.[46] It is to be noted here also that judgment is not mentioned as a separate intellectual faculty.

Another distinction which is sometimes made is that between speculative and practical intellect. This likewise is not a real distinction. They are simply two modes of apprehension of an object by the intellect and are quite accidental to the intellectual functions as such. Now, as before stated, what is accidental to the nature of the object of a power cannot be taken as indicating

[45] *Summa Theol.*, pars. I, ques. 79, art. 7—Note also this summary in *Summa Contra Gent.*, lib. II, cap. 74 fin: Memoria vero in parte sensitiva ponitur, quia est alicuius prout cadit sub determinato tempore; non enim est nisi praeteriti; et idea quum non abstrahatur a singularibus conditionibus, non pertinet ad partem intellectivam, quae est universalium. Sed per hoc non excluditur quin intellectus possibilis sit conservativus intelligibilium quae abstrahuntur ab omnibus conditionibus particularibus.

[46] The view here summarized is given in *Summa Theol.*, I, q. 79, art. 8, and is substantially repeated in *De Veritate*, q. 15, art. 1, and q. 16, art. 1 corp. fin.—also in *De Anima*, lib. 1, lect. 24 fin.

separate powers, e. g. color being the object of the power of vision it is accidental whether the colored object be a man or a great or small colored object. Hence there is no division in the power of vision. The intellectual function speculatively apprehending merely contemplates the being of the object as in operation, whereas practically apprehending it considers the being of the object in operation. "But to a thing apprehended by the intellect it is accidental whether it be ordered to operation or not",[47] and since this is the difference between practical and speculative intellect they cannot be said to be separate functions.

Synderesis.—There remain two other aspects of the soul which are certainly of an intellectual order, either apprehensive or appetitive, and which we must now consider as to their real existence amongst the powers of this order, namely *synderesis* and *conscience.* By synderesis we mean the first practical principles, that is, principles of intellectual conduct, pertaining to reason as a power which we have just seen to be itself identified with intellect. These principles are to be considered in the nature of intuitions or natural habits of intellect inclining it immediately without investigation on the part of reason and without error, "as though proceeding from an immovable principle" to do good and avoid evil. Therefore, it is clear, they are not distinct from the intellectual apprehension. Just as nature bestows on us intuitions of a speculative character, a special habit, which we call understanding of principles so likewise she bestows a similar natural habit as the basis of our intellectual operations in its practical aspects.[48]

Conscience.—From the character which we popularly ascribe to conscience it likewise may not properly be considered a separate power of intellectual apprehension nor even a kind of acquired power, namely habit. It is merely the name we give to an act whereby we bring knowledge to bear upon some individual case. Thus we say our conscience binds, accuses, torments us. Conscience is simply the knowledge which dominates such action. Now

[47] *Summa Theol.*, pars. I, ques. 79, art. 11; also Sent., III, dist. 25, ques. 11, art. 3, *De Veritate*, ques. 3, and *De Anima*, lib. II, lect. 15.

[48] *Summa Theol.*, pars. I, ques. 79, art. 12; Sent., II, dist. 24, ques. 2, art. 3; *De Veritate*, ques. 16, art. 1 to 3.

the effect of such a relation is to create a habit which in turn becomes a principle or source of act. This is more properly called *synderesis,* but it is sometimes called by the name of its cause, conscience, as we frequently call causes by their effects and vice versa.[49]

4. *The Affective States in the Thomistic Classification of Mental Faculties.*

This classification of faculties made by St. Thomas leaves no special place for the feelings and emotions which secure so much attention in modern psychology under the general title of the affective states, where they are considered to be quite distinct from both the cognitive and the appetitive states or tendencies. Michael Maher, S. J., offers the following meanings and distinctions as typical of the modern Scholastic attitude:

> The word feeling is used in several meanings: 1. to denote certain kinds of cognitive sensations especially those of the faculty of *touch*; 2. to express the pleasurable or painful *aspect* of all species of mental energy; 3. to signify complex forms of excitement of a non-cognitive character; 4. as equivalent to a particular kind of rational cognition of an obscure character in which the mind has a vivid certainty without knowledge of the grounds of this conviction. *Emotion* is employed as synonymous with *feeling* in the second and third meanings, more especially in the latter. *Passion* signifies an appetitive or emotional state where the excitement reaches an intense degree. *Affection* usually denotes emotional states in which the element of liking or dislike is prominent; with some writers the term is confined to acts having abstract or highly developed character. In ordinary language, especially in the adjectival form, it is contrasted with reasoned conviction and practical activity.[50]

St. Thomas in so far as he considers feelings of pleasure and pain follows quite closely Aristotle's treatment of the subject in Commentaries on the Greek Philosopher's *Ethics,* where the subject is perhaps most extensively analyzed, especially in the tenth book of that work.[51] Pleasure for St. Thomas, as for Aristotle, is con-

[49] *Summa Theol.*, I, q. 79, art. 13.
[50] *Psychology*, 2nd Ed., p. 223.
[51] *Comment.*, II, 1-10.

sidered simply as a quality resulting in any vital energy which is exercised freely and vigorously. Therefore any faculty, sensuous or intellectual, may have its concomitant pleasure. For example, normal exercise of hearing or of reasoning gives a pleasurable feeling. There are therefore as many pleasures as there are perfectly functioning faculties.

> Now since every percipient faculty works upon the object answering to it, and perfectly, the faculty in a good state upon the most excellent of objects within its range . . . in each case the best working is that of the faculty in its best state upon the best of the objects answering to it. And this will be further most perfect and most pleasant; for pleasure is attendant upon every percipient faculty, and in like manner on every intellectual operation and speculation, and that is most pleasant which is most perfect, and that most perfect which is the working of the best faculty upon the most excellent of objects within its range. . . . And that pleasure does arise upon the exercise of every percipient faculty is evident, for we commonly say that sights and sounds are pleasant; it is plain also that this is especially the case when the faculty is most excellent and works upon a similar object; and when both object and faculty of perception are such, pleasure will always exist, supposing of course an agent and patient.[52]

Pain, in contrast to pleasure, is simply the over-exertion or the defective exercise of the natural, normal, working of a faculty. What is excessive or defective will depend upon what is the natural or acquired scope of a faculty. The object, of course, towards which the faculty is directed may also be the cause of pain by reason of its imperfection or unsuitability. Hence pleasure may easily pass over into pain. What is important from our viewpoint is that neither pleasure nor pain requires a third faculty or set of faculties distinct from the cognitive and appetitive. They are merely healthy and harmonious or unhealthy and unharmonious aspects or phases in the operation of any faculty. A close study of the view must convince one that in comparison with some modern discussions of the subject it represents a very penetrating analysis.

Emotions in the psychology of St. Thomas may likewise be considered simply as intense exercise of the sense appetitive faculties,

[52] *Ethics*, book X, chap. 4 (Revised Chase Translation).

and as such are generally referred to as passions.[53] As we have already noted in our treatment of this order of faculties, they are first divided, like the cognitive, into sensuous and intellectual appetites, the latter being the will. We distinguished also between concupiscible and irascible appetites in the lower or sensuous appetites. The concupiscible appetites move us towards the agreeable or away from the repugnant, while the irascible appetites incline us to resist conditions of difficulty or danger.[53a] The former have as their object good or evil simply, the latter good or evil of a difficult or dangerous kind. The irascible appetites are listed by St. Thomas [54] as hope, despair, courage, fear, and anger, and the concupiscible as love, joy, or delight (pleasure), desire, hatred, aversion, and sadness. Each is treated at considerable length and after apparently close observation. Again we are interested particularly in the fact that emotions are not considered as a separate group of faculties.

The best modern treatment of the whole subject of feelings and emotions from the Scholastic viewpoint of a more or less bipartite division is that of Joseph Jungmann, S. J. in his work, *Das Gemüt und das Gefühlsvermögen in der neueren Psychologie.* Particular emphasis is laid upon the identification of feelings and emotions with the appetitive faculties.

If it is the appetitive faculty which "desires" the good, seeks it, stretches after it, and longs for it, will the seizure, the embracing, and the retention of an attained good—that is, enjoyment, delight—not be essentially then an act of the same faculty? If a piece of iron is brought close to a magnet the latter will attract it to itself and hold it fast. Did it ever occur to a physicist in his senses to postulate two essentially different forces in the magnet, one by which it attracts, and another by which it keeps fast? . . . Joy over the recovery of a near relative is nothing else than an appetitive affection which has embraced its object. Pain, on the other hand, at the annoyance of a much esteemed old man is on the contrary, a reverse or negative activity or

[53] Ques. disp., ques. 26—*De Passionibus Animae*, art. 3: Passio, proprie loquendo, non est nisi appetiva sensitiva.

[53a] *Summa Theol.*, I-IIae-ques. 26 to 48.

[54] *Summa Theol.*, pars. I, ques. 81, art. 2.

appetency in regard to an object actually present but repugnant to its inclination.[55]

Hence Jungmann defines emotion as "a simultaneous activity of both appetitive faculties—the higher and the lower—called forth by the actual knowledge of a good or evil which as such reason alone understands."[56] Another interesting modern discussion of one phase of this subject, that of desires, is to be found in the doctoral dissertation of Ignatius Smith, O. P., presented to The Catholic University of America under the title, *Classification of Desires in St. Thomas and in Modern Sociology,* in which a comparison of St. Thomas' division is made with similar efforts of the sociologists, Professors Lester Ward, Albion W. Small and others. Many modern critics consider the Scholastic treatment of the affective states as the most unsatisfactory part of their analysis. In this most difficult field, however, a beginning at least was made and it is even now doubtful whether psychology gained much when it substituted a three-fold for the older two-fold division. A present-day student of the subject, Dr. Thomas V. Moore, from a strictly empirical standpoint finds a place in appetitive reactions of consciousness for both feelings and emotions and sees no need of a third group.[57] He insists, however, quite rightly, upon the very complex character of emotions involving as they do both cognitive or representative and appetitive or reactive elements.[58] The classifications of emotions in modern psychology have been almost as numerous as the psychologists who discuss them.

5. *Summary of the Thomistic Doctrine.*

In closing this constructive section of the Thomistic theory on mental faculties it may be an aid to clearness to state, What a faculty is not, (especially in view of so much misunderstanding) and what a faculty is.

[55] Jungman, J., *Op. cit.*, pp. 192-193.

[56] *Ibid.*, p. 92.

[57] *Dynamic Psychology*, p. 50, 1924.

[58] *Ibid.*, p. 111, also p. 132: "Every human emotional complex has an important element—intellectual insight into the situation that is involved. This insight into the situation is the cause of the emotion".

1. A faculty is not an independent thing distinct from the mind itself as thing from thing in the sense that the faculty can exist without the mind; it is not a separate agent originating states out of itself apart from the soul. It is not a kind of mental molecule or "part" of the soul. It is not a substance, or mind or essence of mind. Yet, because it is not any of these it does not follow that it is nothing real.

2. A mental faculty is not a habit or disposition. Habits and dispositions are more or less stable tendencies towards mental action which have been acquired by an individual by repeated past acts in that direction. Faculty is not properly anything acquired.

3. A mental faculty is a real determination or modification of the mind, a mode of partial expression of its unity, an "*ens entis*"; a being in a lesser sense than substance. Hence it is a proper accident, a thing which inheres in another thing, yet a real being. It is the proximate ground of a specific kind of mental activity of which soul or mind is the single ultimate ground.

4. Hence a mental faculty is an innate or given power or capacity for a certain kind of mental action or process, if the latter be a better word to characterize mental as distinct from physical action. The Scholastic term '*potentia*' is probably more expressive of this reality than faculty which the scholastics never used. '*Potentia*' also better brings it into line with a parallel reality in both the physical and biological fields. In the physical and inorganic world the realization that the energy of a thing which is here and now actual is not the whole of the activity of the being, calls for a distinction between the power to act and positive action, that is between potential and kinetic energy. The thing is not always in action but when it is not in action it still has the power to act. This power is not nothing but something very real, very definite and very peculiar to the particular nature of the thing. In the biological world, also, we speak very familiarly of the adaptation of the organism. It is through this capacity that the organism survives. But previous to this adaptation there was adaptability, the power to adapt, which again is not nothing. Indeed it is something very real, possessed by some organisms and not possessed by

others and making all the difference between survival and non-survival. So precisely in the field of consciousness the potentia, the ability, the capacity to see, to hear, to imagine, to think, to decide, is not nothing even when not actually so engaged, in seeing, hearing, etc. The thing that does not have the power to see is certainly different from one that does have this power. Actual seeing, hearing, thinking, etc., are similar to the kinetic energy in the inorganic world; the power to do these things to the potential energy. Nowhere in science can we get rid of these concepts. They are not less necessary in the mentally active thing than in the physically or biologically active. All the way up the scale of being we find the constant unfolding of the more or less defined capacities going on constantly. Indeed, growth is the unfolding of capacities which must have been there from the beginning. In each case the capacities are definitely limited. The acorn, for instance, has the power to become an oak, not an animal or a man. In none of these cases need we deny that the ultimate source of activity is the thing itself. "*Actiones sunt suppositorum*". Actions are attributed to the thing. It is the one unitary thing that acts through one or several very definitely described modes or determinations to action. These determinations are real. Just such reality did St. Thomas give to the "*potentiae animae*".

5. Just as certainly as it may be said that these natural determinations or powers to act have a measure of reality, so it may be said that there is not one mental power or capacity but several. These powers are said to be distinguished "*per actus et objecta*", that is both in the differences to be found in their own peculiar nature or character and in the different ways in which these powers when active put the individual mind into relation with objects around it. The former principle is, of course, the real source of the distinction, while the latter is mainly an outward indication of the inner diversity of nature. Thus it is a fact that certain of these potentialities seem to be related to the object by way of mentally taking the object into itself and others by way of inclining the mind towards or away from this same or other objects. Hence this would indicate two general capacities. In like manner, there is value in breaking up these main determinations into lesser

ones if we are to explain the undoubted variety as well as unity of mental experience. It is assumed that this further breaking up may be done more or less accurately. To the absolute correctness of any particular attempt we need not here be committed. We are concerned mainly with the validity of the general procedure.

CHAPTER VI.

Criticism and Present Status of the Faculty Theory.

1. Historical Criticisms.
2. Summary of the Criticisms in Relation to Views of St. Thomas.
3. Present Status.
4. General Summary.

1. *Historical Criticisms.*

From the beginnings of empirical psychology in Scholasticism with the latter's general adherence to a faculty theory of mental activity we may pass on to the numerous criticisms of the theory in the psychology of the Renaissance. These criticisms were undoubtedly occasioned by the tendency to exaggerate the distinct entity of the various faculties in the several centuries following St. Thomas which marked the decline of Scholasticism. The extremes to which the proponents of some of these views went in their complete break-up of the unity of the soul brought no little ridicule upon the theory as a whole. There followed a corresponding extreme reaction which insisted upon reasserting the evident unity which was so apparently the report of consciousness. Prominent among the early assertions of such unity were those of René Descartes (1596-1650) whose psychology with its insistence upon the essence of soul as thought would not tolerate a multiplicity of faculties. "The soul is one and has in itself no variety of parts."[1] The energies of the soul are not parts of the soul because it is one and the same mind which wills and which thinks. "Thoughts organize themselves as follows: certain of these are as images of things to which alone is properly ascribed the name of idea. . . . others have certain peculiar forms as when I will or fear, affirm, deny, always it is some one thing which I apprehend as subject of my thoughts but always it is something more than the likeness of that thing which I grasp; hence from this some are called voli-

[1] *Les Passions de l'âme*, I, 47.

tions, some affections, some judgments."[2] If there is any such thing as faculty there is but the one, namely thought. The so-called distinctions of the various thought processes do not in any way endanger the underlying unity. The common distinction between higher and lower mental faculty Descartes explains fantastically as a struggle between these powers in the pineal gland where a movment initiated by the animal spirits in the body opposes another action set up by the will activities of the soul.[3] It was in the pineal gland that body and mind were able to interact. But not less outspoken was the great Jewish philosopher, Baruch de Spinoza, who very specifically declared that it could be demonstrated that there are no absolute faculties in the mind. Indeed these are merely fictions, nothing more than "metaphysical entities or universals which we are accustomed to form from particulars".[4]

With the advent of John Locke's *Essay on the Human Understanding* we first arrive at what has since been the stock objection to the faculty theory. In a well known passage of this work in which the freedom of the will is the subject of discussion he particularly stresses the uselessness of trying to explain freedom by referring it to a faculty of freedom. What pretends to be an explanation is really no explanation at all. For himself he prefers to substitute for the word faculty the term power.

> However, the name "faculty" which men have given to this power called the "will" and whereby they have been led into a way of talking of the will as acting, may by an appropriation that disguises its true sense, serve a little to palliate the absurdity; yet the will in truth signifies nothing but a power or ability to prefer or choose; and when the will, under the name of "faculty" is considered, as it is, barely as an ability to do something the absurdity in saying it is free or not free will discover itself. For if it be reasonable to suppose and talk of faculties as distinct beings that can act (as we do when we say, "the will orders" and "the will is free") it is fit that we should make a speaking faculty, and a walking faculty, and a dancing faculty, by which those actions are produced, which are but several modes of

[2] *Meditationes*, III, also *Principia Philosophiae*, I, 32.
[3] Cf. Klemm, *History of Psychology*, p. 58.
[4] *Ethics*, II, prop. 48 schol.

motion; as well as we make the will and understanding to be faculties by which the actions of choosing and perceiving are produced, which are but several modes of thinking; and we may as properly say that it is the singing faculty sings and the dancing faculty dances, as that the will chooses, or that the understanding conceives; or as is usual, that the will directs the understanding or the understanding obeys or obeys not the will, it being altogether as proper to say that the power of speaking directs the power of singing or the power of singing obeys or disobeys the power of speaking.[5]

The powers, moreover, according to Locke, do not operate upon one another. It is rather the mind that operates through them. "But in all these it is not one power which operates on another: But it is the mind that operates and exerts these powers; it is the man that does the action, it is the agent that has the power or is able to do. For powers are relations not agents: And that which has the power or not the power to operate is that alone which is or is not free, and not the power itself: for freedom, or not freedom, can belong to nothing but what has or has not a power to act".[6]

Yet Locke himself, though he got rid of innate ideas, cannot get rid of faculties even though he calls them powers, and even though his objection to their independence and individuality has been widely accepted. "Not that I deny there are faculties, both of body and mind: they both have their powers of operating, else neither the one nor the other could operate. . . . But the fault has been that the faculties have been spoken of and represented as so many distinct agents".[7] Neither is the number of powers less than the number of faculties. The general Aristotelian twofold division into thinking and willing continues. This is all the more interesting when we consider how different was the general viewpoint that Locke's analysis introduced. Here consciousness is treated as an independent field of experience, a common characteristic of all mental activity. The "ideas" of Locke are in reality the content of consciousness and may be generally classified as either simple or complex. The former may be further classified

[5] *Essay on the Human Understanding*, bk. II, chap. XXI, sect. 17.
[6] *Ibid.*, sect. 19.
[7] *Ibid.*, sect. 20.

upon the basis of the "different ways whereby they make their approach to our minds", namely: (a) by one sense only; (b) by more senses than one; (c) from reflection only; (d) by all the ways of reflection and sensation.[8] The different origins suggest that one kind cannot be derived from another, hence their separateness. This notion, while not developed by Locke, became later an important principle or basis of classification; that is, the fact that one class could not be derived from another was the clearest indication of their difference in kind.

An important addition to the criticism of the faculty concept was made by the German philosopher, Leibniz, (1646-1716) in his reduction of faculties to "mere empty dispositions which are the remains or traces of earlier impressions".[9] Such a "naked possibility" is in reality nothing. It remained for the later attack of Herbart, however, to work out the full implication of such a position.

In Christian Wolff (1679-1754) we find in the beginning a tendency to accept the new criticism but ultimately a return to the doctrine attacked and with that return an influence on its subsequent reinstatement which is not easy to understand. At first Wolff, like Leibniz, calls the faculties mere "nudae agendi possibilitates".[10] There is but one single power of the soul, the "vis representiva", which is the foundation or base from which all other mental phenomena arise.[11] It is this *vis representiva* which actualizes the "nudae agendi possibilitates", the faculties. Later, however, these bare possibilities become something more. They are real attributes or properties,[12] or natural dispositions of the soul, of such distinctness that they may be compared to the organs of the body. The two traditional general faculties, knowing and willing,[13] reappear and with them a very elaborate, though arbitrary, analysis of the lesser faculties under these two headings. It is in-

[8] *Ibid.*, bk. II, chap. 3, sect. 1.

[9] Cf. *Nouveaux Essais sur l'entendement humain*, II, chap. 10, paragraph 2.

[10] *Psychologia Empirica*, ¶ 29; *Psychologia Rationalis*, ¶ 57.

[11] *Psychologia Rationalis*, ¶¶ 57 and 66.

[12] *Ibid.*, ¶ 388.

[13] *Psy. Rationalis*, ¶ 60.

teresting to note, in view of modern research, the explanation of the interaction of the various faculties by the supposition that each of them contained some element in common with intelligence so as to make coöperation possible. Some effort seems to have been made to arrive empirically at the faculties from the contents of consciousness as introspectively discovered, instead of deducing in an *a priori* manner the activities from the faculties. This was an attempt to imitate the manner of the growing natural sciences of the time, particularly biology.

The influence of Wolff's reinstatement of the faculty theory is clearly seen in the position of Immanuel Kant (1724-1804). Along with his contemporaries, Tetens (1736-1805) and Mendelssohn (1729-1786), he gave recognition to a third general class of faculties, namely feelings, which could not be reduced to the appetitive faculties as the Schoolmen thought. Our interest here, however is not in the details of Kant's theory but rather in the fact of his very definite acceptance of it. His reason for positing the three-fold division, which thenceforward was taken up instead of the older bipartite division wherever faculty psychology was admitted, was that classes are neither deprived from each other nor can they in any way be traced back to each other.[14]

We come now to the most important name in this period of criticism of the notion of mental faculties, that of Johann Friederich Herbart (1776-1841), German philosopher and student of pedagogy as a science. In this latter capacity especially he carried on the most far-reaching polemic against faculty psychology in all of its forms. So devastating was his criticism supposed to be that the Scholastic expression of the faculty theory was generally considered to have received the *coup de grace.* Herbart's attack was practical. If the soul had definite faculties, as Wolff, Kant, and their followers maintained, and mental processes were the effect of their exercise, then education consists in the formal discipline or training of these faculties. With a diversity of faculties will

[14] Cf. *Über Philosophie Uberhaupt:* "Alle Seelenvermögen oder Fähigkeiten können auf die drei zurückgeführt, welche sich nicht ferner aus einem gemeinschäftlichen Gründe ableiten lassen, das Erkenntnisvermögen, das Gefühl, der Lust und Unlust und das Begehrungsvermögen". (Kritik der Urteilskraft-Einleitung).

go a corresponding diversity of aims in education. Against such an educational program Herbart exerted all his influence. Faculties of the soul are nothing more than "class concepts". They have no reality.

> The soul has no capacity nor faculty whatever either to receive or to produce anything. It is therefore no *tabula rasa* in the sense that impressions foreign to itself may be made upon it; moreover, in the sense indicated by Leibnitz it is not a substance which includes in itself original activity. It has originally neither concepts nor feelings, nor desires. It knows nothing of itself and nothing of other things; also in it lie no forms of perception and thought, no laws of willing and action, and not even a remote predisposition to any of these. The simple nature of the soul is totally unknown and will forever remain so. It is as little the object of speculative as of empirical psychology.[15]

A more complete repudiation could hardly be imagined. It has had a very decided effect upon subsequent educational and psychological theory up to the present day.

We have noted that in Locke's analysis of the mind faculties were not denied, although objection was taken to their independence of the mind. Faculties, indeed, are quite necessary in Locke's system in order that his simple ideas, all of which are derived from experience and none of which is innate, may be able to combine as complex ones and to produce complex actions and reactions one upon the other. Of complex ideas he says: "But as the mind is wholly passive in the reception of all its simple ideas, so it exerts several acts of its own whereby out of its simple ideas, as the material and foundations of the rest, the others are framed.[16] Such complex processes as abstraction, for example, are the result of the power or faculty of abstraction. So it is that numerous other processes are "explained". Herbart insisted that this was no explanation at all. In place of such faculties Herbart offers his mechanics of ideas. What he has denied of the powers of the soul he gives to the ideas or 'presentations' to the mind—his *Vorstellungen.*

[15] *Lehrbuch zur Psychologie,* part II, ¶ —, trans. by M. K. Smith. The attack upon the very notion of faculties which Herbart made in Germany was carried on in a similar manner by the psychologist, Sully, in his *Outlines of Psychology.*

[16] *Essay on the Human Understanding,* bk. II, chap. 12, ¶ 1.

It is not part of our task to consider Herbart's substitute for the faculties of the soul. Here we are interested rather in his reasons for the rejection of faculties. These are set forth in various parts of his works, notably in his *Schriften zur Metaphysik,* in his *Lehrbuch zur Psychologie,* and *Psychologie als Wissenschaft,* and, finally, in his *Einleitung in die Philosophie.* We may summarize these under two general headings. The first is an attack upon the very notion of faculty itself. Mental faculties, being nothing more than possibilities, can never be among the facts of mental experience. We do not experience the faculty of feeling or memory or imagination, for instance. It is only some presentation which we may call a feeling or a memory or an image. "Feeling and desire are merely the changing conditions of the same presentation (idea) in which they have their seat".[17] It is impossible to deduce the real activity from this mere possibility.

The second objection is that the faculties are "nothing other than class concepts under which one has sought to order the observed phenomena and to produce a kind of natural history of the soul".[18] Obtained by mere abstraction from mental experience, they cannot rightly be considered as anything real. This objection strikes particularly at the multiplicity of faculties. Of course, other sciences make use of classifications for the ordering of their data but with their advance in understanding they are able to rid themselves of much of this apparatus of classes as superfluous whereas a faculty psychology seems to run to unlimited multiplication.

If we revert now to Herbart's 'primary presentations' from whose action and interaction all other psychic phenomena result we shall find what Herbart substitutes for faculty, namely power. This is quite different from faculty in that it is the result of interaction of the simple presentations rather than the immediate source of mental activity. Thus, when a new presentation is acceptable to all the old presentations its entrance into consciousness results in a pleasurable feeling. When this is not true, and there is struggle between the older presentations as to its en-

[17] *Einleitung in die Philosophie,* ¶ 159.
[18] *Ibid.,* ¶ 159.

trance, the result is a feeling of pain. Presentations struggling into consciousness against hindrances result in what is known as desire and when the struggle is successful we have volition. Hence the newest incoming presentation is affected by the mass of previous presentations or 'apperception masses'. It is not perceived but rather 'aperperceived'.

The objection that a few general faculties upon further analysis tended to become a multitude of special and distinct powers was accepted as a fact by the philosopher, Friederich E. Beneke (1798-1854), and made the basis of a new so-called 'primitive faculty' (*Urvermögen-Urkräfte*) theory which was just as definitely opposed to faculties in the traditional meaning of that term as was the theory of Herbart. Beneke maintained that Locke's rejection of innate ideas and Herbart's discarding of the traditional faculties marked great steps in the advance of psychology.[19] Instead of a few definite faculties, the mind is possessed of a multitude of forces or tendencies. These are not possibilities and are so much alike that we may think of them as one form or essence (the mind). They differ only in their tenacity, clearness, receptivity, and grouping. They take on definite form through the action of stimuli upon them from the external world. When these are sufficiently strong, consciousness takes place and definite sensations or perceptions are formed. Thus every new mental process gives us another new faculty. When the stimulus is removed the faculty remains as a trace in the unconscious and may be aroused again by another stimulus. When a power or tendency is affected by a very weak stimulus, Beneke offers the very original notion that the two may move over into some one of the already formed mental products. These moving elements may also motivate the faculties which remain as a trace after the stimuli have been removed. The old division of faculties into knowing, willing, and feeling may be considered merely as elementary differences in the initial relation of stimulus to the primitive faculty. So all the other traditional faculties are reduced to phases of the action and interaction of primitive faculty and impression.

[19] *Neue Psychologie*, Essays 3, 8, 9, and *Lehrbuch zur Psychologie-(Einleitung)*.

This theory of Beneke, which completely rejected the Scholastic view while retaining its name, has been called by a modern student of the problem, Charles Spearman, the "anarchic doctrine" in contrast to the Scholastic, which he terms the "oligarchic doctrine." [20] Beneke's position has its counterpart today in the educational theory of Edward L. Thorndike of Columbia University. Rejecting the older faculty theory, Professor Thorndike says:

> There are three current opinions concerning the original capacities of man to learn, that is to strengthen and weaken bonds in behavior, which seem contrary to fact. First is the opinion that attention, memory, reasoning, choice and the like are mystical powers given to man as his birthright which weigh the dice in favor of thinking or doing one thing rather than another, however the laws of instinct, exercise, and effect make the throw. This opinion is vanishing from the world of expert thought and no more need be said about it than that it is false and would be useless to human welfare if it were true.[21]

In place of the older faculty theory Thorndike offers, supposedly upon experimental evidence (which we shall discuss later in our general estimate of the historical criticisms we are here cataloging) what Spearman has aptly called the "anarchic doctrine". This, in a word, declares that "the mind is a host of independent and highly particularized faculties".[22] Faculties here is used rather in the sense of special abilities. The fact, which Herbart long ago pointed out, that "he who retains, without any trouble, the technical terms of a science which interests him often has a bad memory for village gossip" [23] as an indication of the impossibility of any general memory faculty, is accepted by Thorndike. "There is no memory to hold in tight and loose grip the experience of the past. There are only particular connections between particular mental events and others".[24]

Perhaps the first actual empirical approach to this 'anarchic doctrine' was that of William James [25] who conducted an experi-

[20] *The Abilities of Man*, p. 56.
[21] *Educational Psychology*, vol. I, p. 174, 1913.
[22] *Educational Psychology*, p. 39, 1903.
[23] *Textbook of Psychology* (Smith trans.), ¶ 93.
[24] Thorndike, *Educational Psychology*, 1903.
[25] *Principles of Psychology*, chap. XVI, pp. 666-668.

ment in memory upon himself and a number of friends to see whether practice in memorizing passages of literature, mainly poetry, would reduce the time required in learning similar passages from other writers. His result tended to show that the practice either did not increase the speed memorizing or actually slowed it down. Thorndike, in collaboration with Woodworth, conducted similar experiments upon much more elaborate lines some years later and with similar results.[26] It is on these findings and the data of other experiments with these for their impetus that Thorndike enunciates his important conclusion so revolutionary for educational practice, that the mind is not a collection of general powers or functions such as visual, auditory, and tactual perception, memory, reasoning and the like but the sum total of countless particular, special abilities in which training in one will not carry over to training in another unless, and to the extent that, the two have certain identical elements in their performance. Thus did Herbart seem fully justified by the findings of modern psychological research. As Spearman points out, the state of scientific psychology at that time did seem to justify this anarchic doctrine. Just previous to Thorndike's early efforts, Clark Wissler examined 22 different mental powers of 325 university students by the new quantitative method of correlation and with entirely negative results.[27] This was further warrant for the view that these many powers were incapable of being grouped under the old general faculties. The lack of correlation, however, was due, as we now know,[28] to a flaw in the method of correlation. When this was discovered and corrected the results showed a very high inter-correlation.

Before closing our statement of the various historical criticisms of the traditional faculty psychology it might be worth while to say a word concerning the attitude of Wilhelm Wundt, perhaps the greatest psychologist of the last century. His theory, though not entirely

[26] "Influence of Improvement in One Mental Function upon the Efficiency of other Functions," *Psychological Review*, vol. 8, 1901, pp. 247-61; 384-95; 553-64.

[27] "The Correlation of Mental and Physical Tests," *Psychological Monographs*, III, No. 6, 82 pages.

[28] Cf. Charles Spearman's "General Intelligence Objectively Determined and Measured" in *American Journal of Psychology*, vol. 15 (1904), p. 221 et seq.

original, may be considered as typical of those held by a great number of modern psychologists who have considered it as absurd to say that mental faculties have any kind of reality whatsoever, are in any way *verae causae*. At the same time he opposed the Herbartian notion of "ideas" which are able to exist in and for themselves. Rather, there is a constant inter-relation among the contents of consciousness which may better be termed processes. Wundt says:

> According to this doctrine the content of psychological experience does not consist of a sum of objects but of all that which makes up the process of experience in general, that is, of all the experiences of the subject in their immediate character, unmodified by abstraction or reflection. It follows of necessity that the content of psychological experience should be regarded as an *inter-connection of processes*.
>
> This concept of *process* excludes the attribution of an objective and more or less permanent character to the contents of psychological experience. Psychical facts are *occurrences*, not objects; they take place, like all occurrences in time and are never the same at a given point in time as they were the preceding moment. In this sense *volitions* are *typical* for all psychical processes. Voluntaristic psychology does not by any means assert that volition is the only real form of psychosis, but merely that with its closely related feelings and emotions, it is just as essential a component of psychological experience as sensations or ideas. It holds further that all other psychical processes are to be thought of after the analogy of volitions, they too being a series of continuous changes in time, not a sum of permanent objects as intellectualism generally assumes in consequence of its erroneous attribution of ideas of those properties which we attribute to external objects.[29]

In a word, sensation, feeling, volitions are merely moments of unitary consciousness. Such units may be called psychical elements but only with the understanding that "element" is not analogous to the physical atom but rather to a movement with its components. Of faculty psychology, he says that faculties are simply class concepts like light, heat, and sound in physics and like those concepts "may serve for a first grouping of the facts,

[29] *Outlines of Psychology*, trans. by C. H. Judd, p. 15, 1897.

but they contribute nothing whatever to the explanation of these facts".[30]

Typical of the attitude of many of the English psychologists contemporaneous with Wundt was the position of Professor James Sully as he expresses it in his *Outlines of Psychology.* While making use of the term very freely he nevertheless says:

> The discussion of the ultimate nature of the so-called faculties and powers of the mind belongs to rational psychology, or that branch of philosophy which treats of mind as substance. The hypothesis of faculty can, however, be criticised from the point of view of empirical psychology in so far as it succeeds or does not succeed in giving a clear account of the phenomena. Looked at in this way it must be regarded as productive of much error in psychology. It has led to the false supposition that mental activity being one and the same throughout its manifold phases is a juxtaposition of totally distinct activities answering to a bundle of detached powers, somehow standing side by side, and exerting no influence upon one another. Sometimes this absolute separation of the parts of the mind has gone so far as to personify the several faculties as though they were distinct entities. This has been especially the case with the faculty of willing.[31]

Finally we may bring our catalog of criticisms to a close by stating the charges against the theory which the late Cornell professor of psychology, E. B. Titchener, makes as follows:

> We may say in criticism (of faculty psychology) (1) that the faculty names merely classificatory concepts, and that the subsumption under them of ideas, feelings, impulses, etc. which are really given in introspection does not help us in the least degree towards understanding these processes. A faculty psychology must, that is to say, be at least a merely descriptive psychology, and can never rise to the level of explanation. (2) But further the faculties, which as class-names are products of scientific abstraction, become changed in the faculty systems to actual forces or powers, which are supposed to give rise to separate ideas, feelings, etc. In other words, the faculty, which

[30] *Ibid.*, p. 11. A review of the history and criticism of the faculty theory with support for Herbart and objections to the theory similar to those we have already urged is also given at some length by Wundt in his *Grundzüge der Physiologischen Psychologie*, pp. 13-20, 3rd ed., vol. I.

[31] *Op. cit.*, pp. 25-26.

rightly defined, is incapable of affording explanation, is substantialized, and so made the ground of a wrong explanation. The first criticism charges the faculty psychology with impotence; the second charges it with seeking by false pretense to conceal its impotence.[32]

Truly, if we accept the dicta of these psychologists, the faculty theory is in a very bad way.

2. *Summary of the Criticism of Faculty Psychology in Relation to the Views of St. Thomas.*

While, as we have said, our main purpose is definitive, viz., that of presenting the exact notion of the best Scholastic teaching upon the theory of mental faculties and hence we are not particularly apologetical, still it will serve the purpose of definition if we consider some of the major objections listed in the above survey. In the minds of many modern readers the supposition is that these criticisms one and all have prevailed against the teachings of St. Thomas and his greatest contemporaries. Too often, however, such attacks tell us what St. Thomas did not hold rather than what he did. It will be impossible for us to take up every detail in the survey of criticism and hence we shall try to group the important points under a few general headings.

The Faculty Theory and the Unity of the Soul.—The most general charge, as we have seen, has been that the various faculties of the soul, though perhaps starting out, as Titchener says, as mere class-names, become changed "into actual forces or powers which are supposed to give rise to separate ideas, feelings, etc." In a word, they become, in the course of discussing them, separate and distinct entities and thus destroy the unity of the soul. Now there is nothing more certain than that the soul or mind is a single unitary principle. Yet we seem to speak of intellect, will, memory, imagination, but particularly will (Sully), as though they carried on their own activity independently of this soul or mind principle. As we have seen in Chapter IV, St. Thomas took the position that the faculties of the soul were both really distinct from one another and really distinct from this soul principle.

[32] *Experimental Psychology*, vol. I, part II, p. 188.

Here we must remember that in Scholastic metaphysics the distinction between a thing or substance and its modification or mode, by which as an imperfect being it expresses or perfects itself, was known as a modal real distinction. It is definitely in the class of real distinctions even though, as in the case of major real distinctions, it is not between thing and thing. It is distinctly to be understood that such a mode, though real, is real only in the subject. To quote one of the ablest modern exponents of the subject, Thomas Harper, S.J.: "But if its entity is only in the subject, and it is in and of itself nothing, it is easy to see why it is absolutely impossible that it should exist independently of the subject." [33] The faculties then are only modes of the soul considered as the source of mental energy or activities. They are, as it were, channels through which its energy flows since it never exerts the full scope of its energy by any one act.

John Locke thought to bring particular opprobrium upon this separateness of faculties through ridicule:

> For it being asked what it was that digested the meat in our stomachs, it was a ready and very satisfactory answer to say that it was the digestive faculty. What was it that made anything to come out of the body? The expulsive faculty. What moved? The motive faculty . . . which is in short to say that the ability to digest, digested; and the ability to move, moved.[34]

He insists, as we have said, that it is "the mind that operates and exerts these powers; it is the man that does the action, it is the agent that has the power or is able to do so".[35] Upon this very point we have but to compare the insistence of St. Thomas some centuries earlier:

> A power is nothing more than a certain principle of operation, whether it be active or passive; not indeed a principle which is an *agent* or *recipient of action;* but that by which the agent acts or the recipient of action suffers; just as the art of building is a power in the builder who builds through it.[36]

[33] *Metaphysics of the School,* p. 346.

[34] *Essay on the Human Understanding,* bk. II, chap. 22, sect. 20.

[35] *Ibid.,* sect. 19.

[36] Potentia nihil aliud est quam principium operationes alicuius, sive sit actio sive passio; non quidem principium quod est subjectum agens aut

Again

> Properly speaking, it is not the intellect which understands but the soul through the intellect, just as it is not heat that makes warm but the fire through the heat.[37]

This can be held even while one insists that the essence of the soul itself cannot be the immediate or proximate source of every different kind of activity as later in this same discussion St. Thomas is careful again to insist:

> It is manifest that the essence of the soul is not the *immediate* principle of its operations; but it operates mediately through accidental principles, whence the powers of the soul are not the essence of the soul itself, but its properties. This indeed appears from the diversity of acts of the soul, which are of different kind and cannot be reduced to one immediate principle . . . so it is fitting that it have many and diverse powers corresponding to the diversity of its acts; powers are said to be correlative to acts; whence according to diversity of actions there should be a diversity of powers.[38]

In the light of these clear statements, it is quite apparent that the frequently quoted objection of Locke, however much it might avail against extreme views of the faculty theory—which may have prevailed at any time and particularly in the period of the decline of Scholasticism,—does not avail against the better expression of the theory at the hands of St. Thomas.

patiens, sed id quo agens agit, aut patiens patitur; sicut ars aedificativa est potentia in aedificatore, qui per eam aedificat. *Questiones Disputate, De Anima,* art. XII.

[37] Ad tertium dicendum, quod intelligere, proprie loquendo not est intellectus sed animae per intellectum; sicut nec calefacere est caloris sed ignis per calorem. *Questiones Disputate, De Veritate,* ques. X, art. IX, ad 3.

[38] Manifestum est ergo quod ipsa essentia animae non est principium immediatum suarum operationum; sed operatur mediantibus principiis accidentalibus; unde potentiae animae non sunt ipsa essentia animae sed proprietates eius. Deinde hoc apparet ex ipsa diversitate actionum animae quae sunt genere diversae, et non possunt reduci ad unum principium immediatum; . . . sed oportet quod habeat plures et diversas potentias correspondentes diversitati suarum actionum; potentia enim ad actum dicitur correlative; unde secundum diversitatem actionum oportet esse diversitatem potentiarum. *Questiones Disp., De Anima,* art. XII.

It is further to be noted in passing that there is here no *a priori* deduction of actions of the soul from previously assumed faculties as has been charged by critics of the theory.[39] It is the clearly recognized difference in kind of the mental acts themselves that leads St. Thomas to suppose, after empirical investigation, different immediate principles of action as avenues through which the unitary soul exerts itself. Far from an attack upon the unity of the soul, then, the faculty theory, as St. Thomas explains it, may be considered as a positive protection of that unity. It may be all very well to say that to ascribe a peculiar kind of mental action to an immediate principle of which the soul is the remote principle is to explain nothing. As a matter of fact, however, it is the evidence itself which forces such a conclusion upon us and that quite persistently in the history of psychology, despite the disguising of the necessity under other names than the tabooed one of *faculty*.

Locke's insistence upon the unity of the soul is made particularly in reference to the freedom of the will. "To return then to the inquiry about liberty, I think the question is not proper, whether the will be free, but whether a man is free".[40] This sounds very much like the title of the question which St. Thomas proposes when he discusses this much mooted question. It is more exactly: "Whether *man* be free of will?"; "Whether man chooses from necessity or freely?" [41]

What must be kept in mind is that in the theory of St. Thomas the soul in its essence is considered apart from the soul as source of activity or power. "The powers of the soul", says St. Thomas, "are said to be parts not of the essence of the soul but of its total power; just as one would say that the powers of the bailiff are part

[39] In speaking of the foundation of the Kantian tripartite division of faculties, O. Klemm in his *History of Psychology* (trans. by Wilm and Pintner), says: "Such a method of reasoning was peculiarly adapted to the old faculty psychology, because the phenomena, the sum total of which went to form such a class, were considered *a priori* as effects of a single faculty, and, as such had to resemble each other to a very great extent" (p. 196).

[40] *Essay on the Human Understanding*, bk. II, chap. 21, sect. 21.

[41] *Summa Theol.*, pars. I, q. 83, art. 1; I a II ae q. 13, art. 6; *Ques. Disp. De Veritate*, ques. 24, art. 1; *De Malo*, ques. 6.

of the whole royal power".[42] The faculties then are *potential* parts of the soul and not *essential* parts,—the various directions or modes in which its energy expresses itself, which may be considered as distinct from the energy and from the soul itself as the directions of several channels of a stream would be considered distinct from the stream and from its source. Such direction is nothing apart from the stream nor can the stream exist without some direction. The two are inseparable; yet, in Scholastic metaphysics separability is not the only test of real distinction and cannot therefore be essential to real distinction. Perhaps there might be some objection to calling the distinction between a thing and its mode a real distinction, even if only modally real. In this particular instance it arises between a mode of action and the thing. In this same metaphysics things do not act by their essence when they are imperfect in the scale of reality. Only God, therefore, a Perfect Being, acts immediately by His Essence and that not by many acts but by one act. Hence God is *Actus Purus*. In Him Essence and Existence as actualized Essence are not distinct principles. That unity of essence and existence is His distinguishing characteristic, something approaching a definition of Him. In other and finite beings power to act is distinct from the thing. But this power to act, this potentiality, is not nothing. Reality of a finite kind is not merely all that is but includes also all that can be. Of course, apart from the thing its power to act is nothing real, but in relation to the thing it is something very real. Certain of its powers to act may be destroyed or their direction changed yet the thing is not destroyed. Reverting again to the stream, its direction is nothing apart from the stream, but this direction may be changed without altering the stream essentially.

Indeed, the whole faculty theory which makes the powers of the soul really, if only modally, distinct from the soul is nothing more than a special application of a metaphysics which has a place, rightly we think, for both being and becoming, for actuality and potentiality, which includes in the real not only what is but what

[42] "Potentiae animae dicuntur partes non essentiae animae, sed totalis virtutis eius; sicut si diceretur quod potentia ballivi est pars totius potestatis regiae". *Ques. Disp. De Spiritualibus Creaturis*, art. XI ad 19.

can be. Rightly understood it does not destroy the unity of the soul but, on the contrary, makes it possible to assert that unity in the midst of diverse types of mental activity in a far more reasonable way than would be possible without a such a metaphysics.

In this regard it may be said that those who insist upon asserting the unity of the soul can hardly mean that all its activity is also of one and the same kind. Yet this is what Mr. Sully says:

> It (the faculty theory) has led to the false supposition that mental activity, instead of being one and the same throughout its manifold phases, is a juxtaposition of totally distinct activities answering to a bundle of detached powers, somehow standing side by side and exerting no influence on one another.[43]

We really had supposed that some kind of difference in character of our mental actions was one of the given facts, however, we might explain it. We can only say that anyone who would maintain that deciding for instance is identical with remembering or that desiring is identical with knowing, if he is serious, must have a mind so totally different from the ordinary as to make communication with other minds difficult indeed.

In Sully's statement it is to be noted that he represents those who hold for a distinction of faculties, even to the extent of destroying the mind's unity, as proving their point by showing that the faculties never have any influence upon one another. The whole trend of the psychology of St. Thomas is a sufficient denial of this charge. We have already shown the close relationship between sense and intellectual cognitions, for instance. "There is nothing in the intellect that is not first in the senses" is a fundamental Scholastic axiom. The active intellect, again, must always have sense data from which to abstract the concept. There is no concept without a turning to the phantasm or image. Will acts only upon representations of intellect. These are but a few instances of the close relation between the faculties. Indeed, the more common charge is to represent the faculty theory as a civil war within the kingdom of the mind. Quite obviously, the theory cannot be attacked upon contradictory charges and be guilty of

[43] *Outlines of Psychology*, p. 26.

both. Sully particularly emphasizes the charge of complete independence as to the will even more than the other faculties; but, as we have already shown from several quotations from St. Thomas, there is no evidence that he regarded this faculty as any more complete in its independence than any other faculty. It is, in fact, quite dependent upon the intellect for the object toward which the soul in this expression of energy is inclined.

The Faculty Theory as Common Sense Psychology.—Another less serious charge, but one which has probably done more to create the stereotyped tradition opposition of modern psychology to this theory, a charge running through much of the discussion often more by implication than by actual expression, is that faculty psychology has been simply the rationalization of a common sense view of the mind's activity as the man in the street might understand it. It is, therefore, unscientific and 'naive'. It is readily grasped by ordinary minds. This is a charge not so easy to meet. There is nothing in the various treatments of faculties in St. Thomas which may be used directly to meet it. Indeed it seems quite likely that Thomistic psychology will be obliged to admit the accusation and do the best it can to show that, as 'common sense psychology', things may not be so bad as they seem. In St. Thomas' day philosophers were apparently not so conscious of the exceedingly abstruse character of their calling as the philosophers of recent centuries. The mediaeval philosopher was truly a lover of wisdom and not already a wise man who naturally suspected the common-place.

I rather imagine that psychology more than any other science will be plagued by common sense views. Its data seem to be readily accessible to everyone with but the slightest effort. We can all look into our own minds, or think we can, without stirring outside our study. But if this objection was simply and literally that faculty psychology is 'common sense' psychology then it would seem to carry its own refutation. But this objection really has behind it a much less evident meaning, at least according to Dr. Carroll Pratt, to whose recent discussion of faculty psychology we have already referred in our introduction.[44] The charge really

[44] "Faculty Psychology" in the *Psychological Review*, March, 1929, pp. 142-171.

means that faculty psychology is an empirical psychology and, though as such it might be supposed to be friendly to exact experimental efforts in psychology, it is really its greatest enemy. Pratt cites the following passage from an address delivered by the late Professor E. B. Titchener, exponent of Wundtian psychology, at Princeton University in 1925, as evidence of this attitude:

> The second unfavorable influence (to the progress of experimental psychology of which Herbartian and philosophical influences are the other but lesser ones) which I have to note is of far greater importance —partly because of its antiquity and perennial vitality, partly because of its seeming innocence and the guise of kinship with experimental psychology which it often assumes, so that it works insidiously from within rather than openly from without. It is the influence of empirical psychology, a mode of psychology that goes back to Aristotle and Thomas Aquinas and that forms the staple contents of most psychol ogies down to and including our twentieth century textbooks. The empirical psychologist professes to take mind as he finds it. . . . And, like everybody else, he finds mind in use, whether in man's converse with himself or in his intercourse with his fellowmen. This subject matter, then, mind in use, the empirical psychologist seeks to reduce to order and arrangement and empirical psychology thus becomes a rationalization of practice, a description and explanation of mental uses. . . . Brentano starts out from mind in use, and his general psychology is, one might almost say, a theoretical applied psychology; it is at any rate a rationalizing of general mental application.[45]

Additional evidence is quoted in a similar vein, with even greater emphasis upon the distinction between scientific facts of psychology and those of every day life, from the very recent work of H. P. Weld, *Psychology as Science*. The work of Brentano referred to, is of course, his *Psychologie vom Empirischen Standpunkte*.

The Scholastic psychologist will probably be obliged to admit the truth of this charge of Titchener. The former's views were presented as an early attempt at empiricism, seeking to ascertain the facts but not hesitating, it is true, to reason back from the facts to what may be the cause, just as any other science is wont to do. Of course, in so acting he undoubtedly comes upon notions

[45] Printed in *American Journal of Psychology*, vol. 36, pp. 313-23, 1925, under the title, "Experimental Psychology: A Retrospect".

which are themselves supra-sensible, supposed realities which are conceptual indeed but none the less taken as real. They are even incapable of exact quantitative measurement in themselves. But, as we have said in our introduction, such a procedure is not different from that of any other science. Scientists who think they can escape metaphysical terms only delude themselves under the guise of a new terminology. We may freely grant that 'faculty' is such a term. Rightly understood, it seems to be required by the exigency of the facts. Perhaps that is the reason why so many psychologists have gone on using it, or a synonym for it, even while they vigorously protest that it has no reality, as for instance Titchener when he says: "Modern psychology has kept the three terms (feeling, intellect, will,) but uses them merely for the purposes of classification." [46] It would seem that Professor Titchener placed a rather heavy burden upon a pure fiction. But one may ask why 'faculty' in psychology must be a fiction whereas similar terms standing for hypotheses in other sciences may be properly considered as *verae causae*. Of course, positivistic philosophers have frequently declared that they have routed or will rout these non-perceptible entities from their philosophy or their science but, like hardy perennials, the entities quite naturally unseen, come trooping back under new labels as, for example, 'states,' 'processes,' and the like. This is what James so happily called 'clandestine metaphysics'.

We might be willing to admit that the mediaevalist by reason of the limitations under which he made his observations of mental life was sometimes rather short on facts and long on theory or hypothesis. But we cannot condemn him because he was not as advanced as Professors Wundt and Titchener. As well condemn the child because he is not a man. Despite limitations due to lack of modern equipment it is still just possible that great minds of that day hit upon very useful hypotheses which fit even the increased number of facts of today fairly well. The old is not false simply because it is old any more than the new is true simply because it is new. As to modern psychology, one may ask whether it may not be long on facts and short on explaining or interpreting

[46] *Outline of Psychology*, p. 307.

hypotheses. Of course, a scientist may conceive his business, as Titchener appears constantly to do, merely to gather facts which come within the realm of simple perception; but the history of the sciences shows, we think, that such a conception of science will never satisfy the curiosity of man. But what is more important, it will stultify observation itself to forego the selective and evaluational power of hypotheses when the latter have been judiciously imagined or conceived, suggested as they are from the intimate knowledge of the facts. Thus, too, are the lacunae often filled in ultimately. One does not note such stoical renunciation of interest in ultimates on the part of modern physics, for instance, and since the days of Kant it has usually been the custom for philosophers and psychologists to admire the physicist in all his works and pomps. In all this, however, we must not be supposed to be denying the value of accurate observation, the beginning, middle, and end of science, even though there have been heretics so bold as to declare that some psychological observation has been of very little value. On this serious charge we shall refuse to commit ourselves. Pratt tells us of the curious case of a strictly observational psychologist who, though he spent a large part of his time giving tests of intelligence, was nevertheless so indifferent to hypothesis that he was not even interested in conceiving his notion of what intelligence might be. The same writer also inconveniently reminds these disinterested observation psychologists that upon their basis they will in strict logic about destroy the science itself.

> It therefore follows naturally enough, since the sole method of science is observation, and since in psychology the observable stuff must be palpable, and since palpable is another word for sensory, and since a shift of attitude obliterates the scientific meanings, values, purposes, memories, motives, recognitions, hopes, fears, aspirations, doubts, longings, interests, reasonings, volitions, *Bewusstseinsanlagen* and what not fall clearly outside of psychology.[47]

From a psychology without a soul we advance to one with most of its data denied! To deny that faculties are given in experience, that only the idea and not the faculty of ideation is given and, therefore, that there is no faculty or function which produced the

[47] "Faculty Psychology" in *Psychological Review*, March, 1929, p. 151.

idea is singularly to circumscribe the field of psychology. To insist that we may study observed facts but must never attempt their explanation is to paralyze a very insistent demand of the mind.

Faculty Theory Does Not Explain.—It is said that the faculty theory does not explain, that it is a mere jumbling of terms to cover up an ignorance which ought to be admitted, that it claims knowledge which it does not possess. It is not only impotent, as Titchener said, but it seeks by false pretenses to conceal its impotence. It starts out admittedly as an abstraction but by some mysterious evolution becomes an actual force. Perhaps this objection may best be met by considering briefly the present status of the theory in the light of certain recent controversies amongst experimentalists and likewise of some non-controversial studies. No claim is made to exhaustiveness in this field. Truman L. Kelley, of Leland Stanford University, in his recent notable work, *Cross-Roads in the Mind of Man, A Study of Differentiable Abilities,* well observes that, "the study of the nature and scope of mental traits is as broad as the entire field of psychology and just about as evasive as the all-pervasive ether".[48] He characterizes that whole field by saying that it is concerned (a) with differentiating between the mental traits and their relationships; (b) with determining temporal changes in the traits; (c) and with modification as end organ changes. Incidentally, Dr. Kelley's chief concern is with the building up of a technique for testing the agreement of any postulation of independent mental traits with the observed facts, with procedure as the present need even more than findings. Of their very considerable differentiation he has no doubt.

3. *Present Status.*

The present status of the faculty theory may be said to be characterized by a strictly empirical approach. The tendency is to avoid the extreme criticism of earlier writers though, as a matter of fact, not all the old bias has disappeard. It would probably be correct to say that this present phase begins with the interests of Professor Thorndike of Columbia University in the original nature and differences in abilities of men. In our outline of the

[48] Published by Stanford University Press, 1928.

criticism of the older faculty theory we listed Professor Thorndike as one of its more vigorous opponents. He espoused what has been called the "anarchic doctrine", namely that the mind of man is possessed of a multitude of highly specialized, largely unrelated, mental abilities. Further earlier evidence for his position, other than that already indicated when we linked this author with Herbartians who denied anything like the functional unity which the older faculty theory supposed, may be found, for instance, in the experiments of a number of his students, working usually in collaboration with him and recorded in Volume II (1902-03) of the *Columbia University Contributions to Philosophy, Psychology, and Education.* The general problems there proposed were those of the relation of mental abilities found in school children doing the same work and the extent to which hereditary relationships influenced mental traits. For our purpose, of course, the answer to the question whether there is any functional unity is of greatest importance. Professor Thorndike's general conclusion, as we have already indicated, is that, far from there being any such thing as general facutlies, practically the opposite is true. We have rather an indefinite number of mental abilities, practically as many as there are performances indicating an ability to do a thing. There exists little correlation between these vast numbers of performance. There are, for instance, as many memory abilities as there are different kinds of data to memorize. Our minds are, as it were, a chaos of special abilities engaged in carrying out the various tasks. In the words of one of the eight investigators, Mr. A. G. Smith, "the lack of any close relationships and different degrees of correlation between different (school) subjects is obvious".[49] Such correlation as does appear, "which is very slight at all events, is due to a process of selection and suppression and not to any relationship inherent in the subject".[50] The children tested were selected perhaps by the school "because they all approximate mentally a certain mind composition . . . Moreover the school is constantly molding and warping the young mind towards the ideal which the school has before it, and ignoring or suppressing all faculties that are use-

[49] *The Relationships between the Abilities Involved in Grammar School Subjects*, p. 14.

[50] *Ibid.*, p. 14.

less to this end".[51] Hence, says Mr. W. B. Burris, the small amount of relationship, "shows the specialization of the different subjects and branches of the same study; their relative amounts show the absence of any special grouping of school abilities, and suggest that an adequate study of school abilities would make our common talk about the grouping of abilities ridiculous".[52] Mr. W. A. Fox's conclusion is as follows: "The small amounts of all of the relationships demonstrate that the real abilities involved in the study of arithmetic are many and are largely independent of one another. The relationships in general are not very much larger than those between different high school subjects".[53] All these data seemed very damaging to the position that faculties in any way constitute unitary functions. Commenting on this state of the question, Spearman observes:

> Even when a faculty is quite acceptable in the sense of indicating a mere *class* of mental abilities it cannot be taken without further evidence as implying any correlation between these, as would be indispensable for the purpose of measuring them all by any simple test.
>
> One curious feature about these formal faculties has yet to be mentioned. The doctrine loses every battle—so to speak—but always wins the war. It will bend to the slightest breath of criticism; but not the most violent storm can break it. The attacks made long ago by the Herbartians appeared to be irresistable; no serious defense was even attempted. Yet the sole permanent effect of these attacks was only to banish the word "faculty"; leaving the doctrine represented by this word to escape scot free. As much may be said for the onslaught of Thorndike.[54]

Shortly after the above quoted Columbia Studies Charles Spearman published in the *American Journal of Psychology* (Volume 15, —1904) an important article entitled: "Proof and Measurement of Association Between Things",[55] and in the same volume

[51] *Ibid.*, p. 15.

[52] *The Correlations of the Abilities Involved in Secondary School Subjects*, p. 27.

[53] *The Relationships between the Different Abilities Involved in Arithmetic, Sex Differences in Arithmetical Ability* (in collaboration with E. L. Thorndike), p. 37.

[54] *The Abilities of Man*, pp. 38-39.

[55] *Loc. cit.*, pp. 72-101.

an equally important research: "General Intelligence Objectively Determined and Measured".[56] In this latter experimental study after a review of all the important studies in correlations of ability since Francis Galton's *Inquiries into the Human Faculty*, Spearman offers these reasons for the mass of contradictions which were the net results: (a) with one exception, none of the previous attempts attain to anything like a precise quantitative expression of the elements to be correlated; (b) with but the same one exception none calculated the "probable error", hence did not know how much of their results were due to chance coincidence; (c) in no case was there any clear explicit definition of the problem to be resolved; none took into account the very large source of fallacy, namely errors of observation.[57] It is sufficient for our purpose to note what Spearman considers to be his more exact results when the faults in the previous researches have been obviated: (a) On making good this methodological deficiency, there is found actually to occur a correspondence—continually varying in degree according to the experimental conditions—between all forms of sensory discrimination and the more complicated Intellectual Activities of practical life. (b) By this same new system of methodics there is shown to exist a correspondence between what may provisionally be called "General Discrimination" and "General Intelligence" which works out with great approximation to one or absoluteness, i. e., perfect correlation, and which is independent of experimental circumstances. (c) The above and other analogous observed facts indicate that all branches of intellectual activity have in common one fundamental function (or group of functions) whereas the remaining or specific elements of the activity seem in every case to be wholly different from that in all the others. The relative influence of the general to the specific function varies in the ten departments here investigated from 15:1 to 1:4. (d) As a consequence of this universal unity of the intellectual function, the various actual forms of mental activity constitute a stably interconnected hierarchy according to their different degrees of intellective saturation. (e) Discussion of the psychical nature of this

[56] *Loc. cit.*, pp. 201-293.

[57] *Ibid.*, p. 222 *et seq.*

fundamental function of general intelligence awaits a more complete acquaintance with it through an understanding of its objective relations. It may be said, however, that it becomes fully developed in children by about the ninth year and possibly even earlier, that it undergoes normally no further change even in extreme old age, that there seems to be not appreciable difference between the sexes in adult life. The function was found almost entirely to control the relative position of children at school and is almost entirely responsible for success in such a simple act as discrimination of pitch. It seems to be bound up with the very essence of intellectual activity and is not related to it by any auxiliary relation such as willingness to make an effort, readiness in adaptation to unfamiliar tests or dexterity in the manner of executing them.[58] These conclusions obviously made Spearman an opponent of the views of Thorndike and were the signal for a long controvery between them.

A few years later Professor Thorndike, in collaboration with Dr. Wilfrid Lay and Mr. P. R. Dean, conducted a research on, "The Relation of Accuracy in Sensory Discrimination to General Intelligence",[59] as the latter was estimated by both teachers and fellow students with groups of women normal school students and high school boys, with the very opposite result. In place of the "approximation to one or absoluteness", these workers maintain that their correlation is only about .23. The significance of this view for our study is that according to these investigators there is no evidence experimentally for Spearman's position that there is one "faculty" or power—call it what you will—which directs the numerous abilities and which Spearman calls his "General Intelligence". Thorndike considers that each of the numerous abilities is special and hence that where any correlation at all is obtained that this is due to similar or identical elements which enter into the actual exercise of these several abilities. Thorndike's emphatic summary is to the effect that "one is tempted to replace Spearman's statement by the equally extravagant one that

[58] *Op. cit.*, p. 283 *seq.*

[59] *American Journal of Psychology*, Vol. XX, 1909, pp. 364-369. pp. 101-115.

there is *nothing whatever* in common to all mental functions or to any half of them".[60]

Spearman's next important contribution was made in collaboration with Bernard Hart in the *British Journal of Psychology*.[61] It was the culmination of numerous attempts to arrive at a method of manipulating mental measurements in order to determine the presence or absence of the general factor he proposed. In this collaboration entitled, "General Ability, Its Existence and Nature", the following criteria related to the problem of mental faculties: a. Absence of a general factor and of specific abilities would result in zero for the intercolumnar correlations in a table of correlations; b. If the table of correlations involve the presence of a number of specific faculties then the intercolumnar correlations will be either: (1) high positive; (2) high negative; (3) low; c. Absence of any underlying general factor in any performance measured will mean an approach to the one of unity in all the intercolumnar correlations whenever the distribution of values is wide enough to prevent ranking being disturbed by errors of sampling.

After an extensive review of all the important studies up to this time this investigation offered the following conclusions:

1. At present there exists such a great divergence of opinion about the correlation between different intellectual performances as to impede gravely the progress of psychology.

2. But closer consideration of all the actual data of different authors shows that this divergence is merely due to gross misinterpretation. In reality all the facts indicate unanimously that the correlation arises through all the performances, however different, depending partly on a general Common Factor.

3. The same conclusion is indicated by the recent surprising regeneration of mental tests. For this appears to be due to both their purpose and method having been transformed in accordance with the theory of General Factor.

4. This General Factor is not any special sort of process, such as an "intelligent or synthetic" operation.

5. The fact of correlation existing between quite different intel-

[60] *Ibid.*, p. 368.

[61] *Loc. cit.*, vol. V (1912), p. 51 *et seq.*

lectual performances seems to be fundamentally identical with the fact that any such performance inhibits quite different simultaneous ones. Both phenomena are explicable by conceiving that every performance depends partly on some *common fund* of *energy*. This, then, is the required General Factor. Explanation by 'attention' seems inadequate.

6. Every performance depends not only on this General Factor, but also in a varying degree on a factor specific to itself and all similar performances.

7. This doctrine of general and specific factors (or, viewed from another aspect, general and specific abilities), though based primarily on psychological evidence, appears to be no less indispensable for understanding the facts of physiology. Every intellectual act appears to involve both the specific activity of a particular system of cortical neurons and also the general energy of the whole cortex.

8. The doctrine appears to have wide bearings on general psychological theory and practice.[62]

The fact that Spearman used the published data of so many observers, even those opposed to his position, and yet was able to show that they were all governed by the same law gave most striking support to his contention that some common factor, of as yet unknown nature, really did underlie many cognitive operations.

Shortly after this important contribution Spearman proposed an improved method known as the tetrad criterion, which even more exactly confirmed his position. Applying it to much experimental data of his own as well as certain data of Thorndike and Simpson he was also able to show the existence not only of a common factor in the various abilities but a specific factor as well for each ability. By this latter factor they were really differentiated. Concerning this discovery Spearman says:

> The importance of this result is estimated by the present writer very highly. The bare fact of such an exact concordance throughout such a vast extent of independent research, including the work of the standard of Thorndike's laboratory, seems to indicate that the science of psychology is entering a new era. And the conclusion backed by such

[62] *Ibid.*, p. 79.

an accumulated mass of evidence, the theory of the two factors, does not confine its significance to individual differences of ability, but—as the writer hopes to show shortly—reaches the heart of all the great problems of attention, association, fatigue, transfer of training, and mental growth. Its bearings are not even limited to the cognitive aspects of mind, but extend their ramifications deep into the affective and conative aspects also.[63]

The discussion has of course its practical aspect in the question of the transfer of training in education. If the mind is made up of a definite number of mental powers such as reasoning, memory, attention, etc., training of one of these, say in mathematics, will make one more proficient in reasoning, when applied to law or business or religion. In a word these powers are strengthened in some way analogous to the strengthening through exercise of a body muscle. Thorndike's position obviously opposes any such notion. His position is that any transfer is due simply to what he calls "identical elements" in each of the functions. He states it thus:

A change in one mental function alters any other only insofar as the two functions have as factors indentical elements. The change in the second function is in amount that due to the change in the elements common to it and the first. The change is simply the necessary results upon the second function of the alteration of those of its factors which were elements of the first function and so were altered by its training. To take a concrete example, improvement in addition will alter one's ability in multiplication because addition is absolutely identical with a part of multiplication, and because certain other processes, for example, eye movements and the inhibition of all save arithmetical impulses are in part common to the two functions.[64]

Any transfer then was learning over again what was learned before in another situation.

Thorndike's revolutionary doctrine which he continued to insist upon in numerous studies has been the signal for a vast literature of an experimental character during the last quarter of a century. It will be sufficient for our purposes to note an excellent critical

[63] "The Theory of Two Factors" in the *Psychological Review*, vol. 21, pp. 101-115.

[64] *Educational Psychology* (1903 ed.), p. 80-81.

review and reinterpretation of this whole field made by Mr. P. T. Orata of Ohio State University.[65] He points out that Thorndike's assumption that mental functions are highly specialized must mean that a specific ability is either a subdivision of a faculty, in which case he is back to faculty psychology and formal discipline—or else that each specific act is dependent upon an equally specific ability with no transfer at all. But if this former is rejected the latter supposition would contradict the commonest fact that we constantly use old experience in dealing with new situations, and would really make education impossible. Thorndike quite apparently would not take the first alternative but rather seems to have given repeated evidence that he accepts the second despite its difficulty, if not actual absurdity. Orata's conclusion is that the theory is not even supported by the results which Thorndike himself obtained.

> When experiments show that mental functions appear to be highly specialized, we have given evidence that this is due to the nature of the experiment, that is, if the conditions of the experiment are so controlled as to place the emphasis on the development of specific reactions to specific stimuli, the outcome will inevitably be specific and mechanical habits, which makes it appear that mind consists of discrete and independent mental functions. On the other hand, if the conditions of the experiment are so altered as to introduce favorable conditions of transfer, such as conscious adaptation of means to ends, formulation of laws and principles, discussion, analysis, and organization of experience to fit the demands of the new situation, the results of the experiments are pretty sure to indicate that the mind and intelligence are not divisible into small bits of particular abilities which are insulated and independent of one another, but that they represent a unitary and highly integrated system of adaptive and flexible forms of behavior.[66]

Orata opposes Thorndike's evidence for high specialization of mental functions with considerable convincing experimental evidence that such functions may be generalized, drawing from the

[65] "Theory of Identical Elements." Doctoral Dissertation. Columbus, Ohio, 1928.

[66] *Op. cit.*, p. 174.

studies of Charles H. Judd,[67] H. A. Ruger,[68] W. C. Rudiger,[69] W. W. Coxe,[70] Herbert Woodrow,[71] G. P. Meredith,[72] and a number of others. The root of the whole difficulty, as Orata points out, lies in Thorndike's fundamental misconception of the nature of intelligence, in his attempt to explain the latter on the basis of mechanical habits alone which really explains intelligence only by explaining it away.[73]

The general result of this exhaustive critical survey of the present status of this controversy would seem to be a justification of the opposing position of Spearman who insists, as we have said, on a certain functional unity in mental activity. Spearman has made many subsequent extensive studies since his first announcement of proof of 'general intelligence' which have greatly strengthened his earlier position. These are summarized in his two works, *The Nature of Intelligence and the Principles of Cognition* (Macmillan, 1923) and *The Abilities of Man, (ibid.* 1927). As we have already seen, he asserts and demonstrates the existence of a general faculty of intelligence—the so-called "g" factor—as underlying all special mental abilities—the "s" factors in a performance. All performances have these two factors, the former varying in amount

[67] "Studies in Perceptual Development" in *Psychological Review*, Monograph Supplement, No. 34, pp. 349-69 (with D. J. Cowling); "Perception of Illusions", in *Psychological Review*, vol. 9, pp. 27-39, 1902; "Relation of Special Training and General Intelligence", in *Educational Review*, vol. 36, pp. 28-42, 1908; "Scientific Study of High School Problems", in *School Review*, Feb., 1910, pp. 93-95. Cf. also chap. XVII, "Psychology of High School Subjects", 1915.

[68] "The Psychology of Efficiency", *Archives of Psychology*, No. 15, June, 1910, 88 pp.

[69] "Indirect Improvement of Mental Functions Through Ideals", *Educational Review*, vol. 36, pp. 364-71 (Nov., 1919); "Mental Discipline", *School and Society*, vol. I, p. 171; cf. also chapter VI in *Principles of Education* (1910).

[70] "The Influence of Latin on the Spelling of Latin Words", *Journal of Educational Research*, Monograph No. 7, 121 pages (1925).

[71] "The Effect of Type of Training upon Transfer", *Journal of Educational Psychology*, vol. 18, pp. 159-172, March, 1927.

[72] "The Consciousness of Method as a Means of Transfer of Training", *Forum of Education*, vol. 5, pp. 37-45, Feb., 1927.

[73] *Theory of Identical Elements*, p. 175.

from one performance to another. Whatever correlations there are between them are proportionate to the extent of this common factor in them. Close consideration of the data of authors which tend to contradict this conclusion is really due to a misinterpretation according to Spearman.[74] It may perhaps be correctly said that this author has at least demonstrated the existence of a general factor underlying cognitive operations.

Spearman reviews the hypothesis of mind as general mental energy which has been persistent through a very long period of psychology and which is very adaptable to the faculty theory. Maher, for instance, among the neo-Scholastics makes constant use of this notion. Spearman presents a very long list of names of prominent psychologists of the present day, men of numerous schools, who likewise favor this hypothesis, including those who give it a physiological version by connecting it with nervous energy. It is an hypothesis which is bound to admit the existence of mental acts as opposed to the processes of Wundt and Titchener, even though the admission is made under the guise of some other name. Acts seem to be so evident as elements of consciousness. One seems most certainly to recognize mental phenomena which he calls an act of memory or of reasoning of recognition, etc. These have very distinctive qualities which we may call act-qualities. These represent different outlets for the common fund of energy of the mind. Summing up his hypothesis of mental energy Spearman says:

> In ordinary waking life the commencement of any mental activity (using this term in its broadest sense) causes other activity to cease whilst conversely the cessation of any activity causes other activity to commence. Such mutual influence proceeds in a regular manner so that—after making due allowance for all specific interaction, facilitating or inhibiting—there are quantitative equivalencies between activities that come and go. . . . Otherwise expressed the constancy of total output shows that all the mental activity, just like the physical, consists in ever varying manifestations of one and the same underlying thing, to which may be given the name energy.
>
> No such energy, however, can possibly work in a vacuum, but only in some or other "engine". . . Now comes the question as to how

[74] *Abilities of Man*, pp. 121-126.

this general energy and these specific engines may best be conceived physiologically. With respect to the engines a suggestion is supplied at once; for the different kinds of mental output would naturally be subserved (mainly at any rate) by different neural systems. These latter, then, are suggested as being the engines. With respect to the mental energy, the available information is less definite. . . . The facts of general psychology quite apart from those of individual differences —strongly support the suggestion of mental energy and engines. Moreover, such an energy would seem to be just what is wanted to explain g, whilst the engines might go far towards explaining the s's.[75]

Commenting on the above hypothesis, while admitting that it is the most vulnerable and yet perhaps the most serviceable part of the whole of Spearman's work, Dr. Pratt quite correctly observes:

The acceptance of such a view, both on its factual and theoretical side, implies, however, a point of view towards mind very like faculty psychology. We have already noted the resemblance between the scholasticism of Brentano's act psychology and the faculty psychology of mental powers and capacities. On the present view mind is conceived of as an intricate network of powers and capacities which are revealed in consciousness by act qualities. We are hence brought back to a position we found not looked upon with much favor (faculty psychology). But I trust it has been possible to show that much of the adverse criticism directed against faculty psychology has been unwarranted.[76]

The double barreled accusation against faculty psychology—its meaninglessness and its destruction of unity of mind—as Spearman observes, is in reality groundless.

In the light of all the experimental work which has thus far been carried on including a number of researches that have been conducted at the Psychological Laboratory of The Catholic University of America, Dr. Thomas V. Moore offers the following summary of the bearing of this data on the old problem of mental faculties:

Reasons can be given, from a consideration of the mathematical proof of the tetrad equation, for the following statements.

1. Each of the specific measures entering into the tetrad function

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[75] *Abilities of Man*, pp. 133 and 135.

[76] "Faculty Psychology" in the *Psychological Review*, March, 1929, p. 169.

relates to an independent mental ability. Reasoning is not perception, perception is not memory, etc.

2. None of the specific measures can possibly be regarded as the general factor underlying them all.

3. The sum total of the specific measures cannot be regarded as the general factor underlying them all.

Having these conclusions established (and they could be enlarged upon by the criterion of Hart and Spearman mentioned above, (*British Journal of Psychology*—1912) we may regard it as established that the human mind possesses a number of mental faculties which may be described and specified more in detail by a consideration of the tests by which they are made.

Underlying the faculties whose correlations give us tetrad differences there is one common underlying factor. The tetrad equation only proves the fact of the existence of this general factor. It tells us nothing of its nature. What may we surmise as to the nature of this general factor? Is it psychological or neurological in nature?[77]

Dr. Moore is of the opinion that the general factor of intelligence is neurological for the reason that much experimental investigation tends to show that " most of the known abilities of the human mind are excluded as explanations of the general factor ".[78]

It remains now for experimental psychology to determine precisely the number and nature of each of the special abilities which may be compared to the various mental faculties of the Scholastic system. Undoubtedly upon the new empirical basis it is quite probable that some of the more general faculties will be found to be really several powers, that new powers not distinguished may be shown to be present. Our concern in this study, however, has not been particularly the correctness of the various divisions but whether the concept in general was fundamentally sound. This we confidently believe, modern empirical studies have shown to be a fact. Modern psychology cannot well develop without assuming the reality of mental powers, call them what it will. A vast field awaits research students on this last point, viz., the actual number and particular nature of each of the mental functions.

[77] " The General Factor in Intelligence ", in the *Proceedings of the Fifth Annual Meeting of the American Catholic Philosophical Association*, Dec., 1929, Washington, D. C., p. 29.

[78] *Ibid.*, p. 29.

Its importance for education and social life generally has well been emphasized by Dr. Kelley.[79]

In closing, we may mention a few efforts along this line. Dr. Thomas V. Moore in his research, "Correlation Between Memory and Perception in the Presence of diffuse Cortical Degeneration",[80] by applying the criterion of Hart and Spearman and using a large group of abnormal as well as normal subjects, finds conclusive evidence for the separation of immediate memory from what may be identified as the power of retention. There are two distinct mental functions or faculties rather than one general faculty of memory.

Considerable work has been directed towards the study of attention as a separate faculty. The Scholastics generally regarded attention as simply a special or more intense application of cognitive energy to some object presented to the mind. Present evidence would seem to point to a special faculty of attention. A number of studies, particularly those of Herbert Woodrow of the University of Minnesota, would tend to show such separateness for an attention factor. In his study, "The Faculty of Attention" he says:

> In order to justify the designation of attention as a faculty, it must be possible to demonstrate that the degree of attention of any individual at a given time depends upon certain factors that remain constant for that individual, no matter what the particular case of attention may be, that is, in spite of endless variation in the specific form or content of the mental processes involved.[81]

His investigation undoubtedly demonstrates a general capacity for attention on the part of any individual. Attempts have been made to identify this general capacity for attention with Spearman's "general intelligence" but with very doubtful results. The fact of a general faculty of attention, however, has been amply confirmed by a research by Brother Philip [82] in the Psychological Laboratory

[79] *Cross-Roads in the Mind of Man*, pp. 227-231.

[80] *Psychological Review Monograph Supplements*, vol. 27, Psychological Studies from the Catholic University of America.

[81] *Op. cit.*, published in the *Journal of Experimental Psychology*, vol. 1, pp. 285-317, 1916.

[82] *The Measurement of Attention.* Doctoral Dissertation, Washington, D. C., 1928.

of The Catholic University of America. An added interesting note in this study is the indication of a cessation of the growth of the attention faculty at about fifteen years of age.

This year from the same Laboratory came an empirical study of character in children.[83] Thirty-three character traits such as obedience, orderliness, cheerfulness, sociability, etc., were studied in 50 children, averaging about thirteen years. The conclusion which interests here is that these thirty-three traits are shown to be, " not genuinely specific traits, not unique elements with nothing common to any of them ". The analysis of them shows the existence of three sets or groups of character traits which are called: will-cheerfulness set, sociability group, and the sthenic-emotionality group. The will-cheerfulness group for instance is made up of eight individual traits, manifestations of the underlying will factor.

The present state of the discussion upon the exact number of mental faculties, however, is not our particular concern. This minor question while very important and very interesting is outside the scope of this discussion. Our aim has been simply to recover the definite notion of faculty as a concept in the minds of the best Scholastics, particularly St. Thomas and to ascertain whether criticism directed against some forms of this concept could be validly urged against the views of St. Thomas as well. Our conclusion on this latter point is decidedly negative. We have further considered the Thomistic view of the concept in the light of some tendencies in modern empirical psychology and have come to the conclusion that ' mental faculty ', as he understood it is still basically sound. It is, of course, not contended that future empirical study may not make a considerable number of changes in the detailed divisions which St. Thomas presented. There is every indication that such changes will be made.

While it is outside the scope of this investigation, the evident need of a ' faculty ' or ' ability ' psychology as recognized by certain research students today further prompts one to ask: faculty or power or ability of what? Is it possible for these faculties or

[83] *The Empirical Study of Character*, by Sister M. Rosa McDonough. Doctoral Dissertation, Washington, D. C., 1929.

capacities to proceed from nothing? Can there be powers or abilities without some thing or substance of which they are the powers? Back of our problem, of necessity, there is the larger one of the substance of mind. If the faculty is an inherent mode of mental activity it must be the mode of something. By this token it would seem then that the resuscitation of anything like a faculty psychology, however changed in actual details of classification, must be a revival also, if there is to be consistency, of the notion of the reality of mental substance or soul proper, a something which exists in itself. Otherwise we shall inevitably find ourselves substantializing or hypostatizing the powers or abilities themselves to the destruction of the unity of the mind.

Further, as without the faculties we are at a loss to explain the very obvious variety in our mental experience, so without the one substantial soul we can never explain the equally obvious unity. The faculties, each of which only partially expresses this unitary entity, by the very fact of their limitation permit the mental energy to be varied. As both variety and unity are equally insistent reports of introspection, both powers of soul and substance of soul are together needed to explain such reports.

If the psychologist who admits only mental function and denies mental substance wishes to go the length of the materialistic position and hold ultimately that these so-called mental functions can be reduced to functions of the material brain, then they are *material powers* of a *material substance,* but they are not powers of nothing. Power and substance have not been escaped. Such an extreme position, of course, encounters the great difficulty of explaining variety of powers. On the physical or brain side, hearing, seeing, thinking are all quite similar. On the mental side, they seem to be irreducible one to the other. In any case, there is a power of a substance.

But many psychologists of today insist that the facts will not permit such reduction. Professor McDougall, for instance, in his *Outline of Psychology,* says: "The mechanistic psychologist will say: What you call the mind is just what I call the brain. Why go out of your way to set up this vague, mysterious, purely hypothetical *something* which, as you admit, no one has ever seen or handled or can hope to see or handle, while all the time you have

the brain, as solid as a lump of cheese, which we positively know to be concerned in all experience and in all behavior, and about which the labor of thousands of expert workers have built up an immense mass of knowledge? To this I would reply: I do not underrate the value of physiological knowledge and research; but I assert that, in the present state of science, it is not profitable to substitute the brain for the mind. To do so limits unduly our freedom of thought; it ties us down to one kind of explanation, leads us to absurd consequences (of the kind we have noticed) and, worst of all, it is apt to blind us to the facts of observation and erases our interpretation of other facts. . . . I would say: Let the psychologist make the fullest use of all the help that physiology can give; let him regard it as one of his tasks to harmonize or coördinate the facts and descriptions of his own science with those of physiology. But let him not capitulate to the unjustified demand that his science shall abdicate its functions in favor of a mechanistic psychology." [84] It is interesting to observe that while Professor McDougall needs the concept of mind for the functions and structure of mind which he proceeds to describe, he nevertheless seems to be very fearful about soul and faculty of soul which occupy the same place in psychological hypothesis.

We may say then that St. Thomas is entirely consistent in asserting a substantial soul of which powers or faculties are its modes or means of expression. Any psychology which tends to revive in any way, however, modified, a faculty psychology must feel the need of such a substance of mind. Nor is it possible to say that this is going beyond psychology and entering into metaphysics. Capacities, powers, faculties are themselves metaphysical and in strict logic the facts which demand them also demand the further metaphysical concept of mind if they are to have any meaning.

4. *Summary.*

We may now briefly state the results of this investigation as follows:

1. The faculty theory of psychology as propounded by St. Thomas does not make the *potentia*, as faculty is called, distinct

[84] *Op. cit.*, p. 36.

from the soul as though faculties were distinct things, yet it insists that the *potentia* is not nothing, that it cannot be said to have no reality at all.

2. It considers the faculty as an innate power to act in the soul or mind, the means by which the mind may express itself in a partial way. This concept of power to act as something distinct from acting and from the thing which acts is one which is used constantly throughout the physical and biological sciences as a correct and necessary report of experience. Its extension to the field of psychology is equally necessary.

3. This faculty theory, attached as it is to the theory of a substantial soul, is by that fact a thoroughly consistent explanation of the unity as well as variety which is found in mental experience. Theories which accept capacities or abilities as practically synonymous with powers or faculties and yet deny substantiality of mind cannot be consistent.

4. Criticisms of the faculty theory as propounded by St. Thomas, whether serious attacks or made by way of ridicule, are for the most part founded on misconception of the Thomistic theory or distortions of it at the hands of commentators and hence do not destroy the theory in its best statement. This is not offered by way of proof, however, of the real existence of faculties, but merely as a demand for a new approach to the question.

5. Psychological research within the last few decades would seem to indicate the soundness of the general concept and the actual need of the revival of the theory. It is probable, however, that in view of the evidence brought to light by recent studies, we shall have modified our ideas as to the number and qualities of faculties. Incidentally any such revival of the general concept of faculty psychology, if it is to be consistent, must also accept the more general theory, of which the faculty theory is but a part, namely the existence of a substantial mind.

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